

**DEVELOPMENT OF A FRAMEWORK TO  
EVALUATE THE IMPACT OF BEHAVIOURAL  
FACTORS ON THE PERFORMANCE OF  
STRATEGIC RAILWAY ALLIANCES IN THE  
UK**

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## DEDICATION

*“The love of a family is not an important thing, it is everything”.*

*This research is dedicated to my devoted family, my dearest late father and mother, my beautiful wife Zainab, and my gorgeous daughter Mayar, my lovely son Bassam, who are true gems, and my brothers and sisters; who are always close to my heart, no matter how far away I am.*

## **DECLARATION**

This research is submitted under the University of Salford rules and regulations for the award of a PhD degree by the research. While the research was in progress, some research findings were published in refereed conferences papers prior to this submission.

The researcher declares that no portion of the work referred to in this research has been submitted in support of an application for another degree of qualification of this, or any other university or learning institution, either in the UK or another country.

*Wael Al-Naseri*



## ABBREVIATIONS LIST

SA	Strategic Alliance
SAs	Strategic Alliances
NHA	Northern Hub Alliance
BSFs	Behavioural Success Factors
BNFs	Behavioural Negative Factors
SRAs	Strategic Railway Alliances
SRA	Strategic Railway Alliance
R & D	Research & Development
AMT	Alliance Management Team
X <sup>2</sup>	Chi-Square Test
KWT	Kruskal Wallis Test
GOFT	Goodness of Fit Test
PPPs	Public Private Partnerships
Q3, Q4	Quarters of Year
APT	Alliance Project Team
LTM	Lower Team Management

## **PUBLICATIONS**

1. Hameed, W. & Abbott, C., Critical review of the success factors of strategic alliances in the UK construction industry, The 13th International Postgraduate Research Conference 2017, The Salford University, The UK. P.P. 15 – 26.
2. Al-Naseri, W. & Keraminiyage, K. Exploring Behavioural Negative Factors Hindering the Performance of Strategic Construction Alliance in the UK, The 14th International Postgraduate Research Conference 2019, The Salford University, The UK.

## ABSTRACT

The increasingly competitive environments that industries are operating in today, pose several complex challenges, such as technological advances in both hard and soft systems, which require behaviours, skills and knowledge. These competencies can be better accessed by organisations through the creation of strategic alliances, as they allow individual organisations to leverage their comparative advantages and ultimately gain an edge. The formation of strategic alliances has now become a fundamental business strategy in several industries, while individual organisations are less competitive alone, with the formation of strategic alliances, they stand a better chance of competing. Accordingly, this research seeks to explore the impact of behavioural factors on the performance of strategic railway alliances.

This research investigates the impact of behavioural factors, namely the behavioural success factors and behavioural negative factors, which impact on the performance of strategic railway alliance, in order to provide affordable and effective solutions that can be adopted. Therefore, the aim is to propose strategic guidelines and a framework, to enhance the performance of strategic railway alliances, through the identification of behavioural negative attitudes that impact on railway alliance performance, and the proposal of enhancement steps to overcome the negative effects. For the proposed purpose of this research, the selection of a developed country (the UK) permits a clear and in-depth understanding of the process involved when conducting strategic railway alliance functions.

This investigation adopts an exploratory sequential mixed-method approach that follows a case study strategy. Using a mixed-method approach assists in the improvement of both the validity and reliability of the current research. The data has been collected sequentially using semi-structured interviews and questionnaire surveys and the data collection period was carried out from November 2017 to July 2018. A content analysis technique was used to analyse the collected qualitative data and identify themes and patterns. Moreover, Chi-square tests were used to analyse collected quantitative data in order to understand the level of significance for each factor, while a Kruskal-Wallis test determined whether there was any significant difference between the independent variables (participant experience) and dependent variables (behavioural success factors and behavioural negative factors).

The findings demonstrate that the presence of behavioural success factors is significantly important within strategic railway alliances, as the efficient and effective availability of these factors will ultimately enhance the successful delivery of the performance of strategic railway alliances. Whilst behavioural

negative factors identified hinder the achievement and success of the relationships inside the strategic railway alliances.

This research contributes to the scant literature currently published in the field of strategic railway alliances in developed countries, such as the UK. The originality of such research could be attributed to the limited attempts that have been conducted previously, which explore the nature and achievement of successful strategic railway alliances. The strategic guidelines and framework provided during the research are targeted to enable the arrival of sensible means, that can overcome the barriers in a strategic railway alliance process and achieve the outcomes. The proposed guidelines and framework are expected to be beneficial for the railway industry, as well as business, governments, and academics. They focus on debilitating the behavioural negative attitudes that can lead strategic railway alliance performance to failure. Furthermore, this research will be considered beneficial for non-governmental and non-business organisations as it will shine a light on the best practices for the creation of a strategic alliance in future programmes.

# Chapter 1 Introduction

## 1.1 Research Background

The railway sector has consistently suffered fragmentation along a construction projects' life cycle, proving to be a major challenge in the required performance improvement for project delivery (Staykova and Underwood, 2017, Meng et al., 2011, Van Den Hurk and Verhoest, 2016). Furthermore, traditional contracts do not encourage integration, behavioural coordination and communication between the project parties, that are needed to cope with this fragmentation (Pal et al., 2017). As they are fundamentally price-based and seek to transfer, rather than address risks, thus achieving poor value for the industry (Che Ibrahim et al., 2015). This issue often leads to the appearance of adversarial relationships between project parties, that suffer from an inconsistent aligned vision, poor communication, distrust and a lack of commitment, whilst consuming resources and energy (MacDonald et al., 2013). In fact, it is widely believed that the characteristics of these contracts restrain the effectiveness of collaboration, resulting in dissimilar teams, who are incapable of cooperation and the work required to deliver the project successfully (Lahdenperä, 2012). This is a critical challenge, particularly for economically developed countries. With the dramatic growth of the railway sector, especially, with the trend of economic globalisation and the rapid evolution of technology, the whole business has changed. Indeed, over the years there has been an accelerating effort from primary players to conduct major initiatives to enhance the performance of the railway sector. However, they have often been subject to criticism for not providing solutions to ensure the long-term expectations of relationships.

Nevertheless, the railway sector in the UK, which is considered vital for transportation, is not far off from confronting these challenges. As it has been seeking to establish developed collaborative strategies to address gaps inherited from a previous era. Thus, strategies have been broadly classified into joint venture, partnership, public-private partnerships (PPPs) and strategic alliances (Dewulf and Kadefors, 2012, Donato and Shee, 2015, Chan et al., 2004). However, a significant disproportion is evident in the research available, and the railway sector activities related to the four types of collaboration. With joint ventures and partnerships having a long lineage from the 1980s, and PPPs from the 1990s (Tang et al., 2010). While strategic alliances show relatively limited academic engagement. Furthermore, this disproportion also extends to the limitations of studying behavioural factors, that influence the performance of alliances (Strahorn et al., 2017, Boyer, 2016, Dania et al., 2018).

Even though an increase in collaborations in the UK railway sector is evident, there is still a percentage of challenges facing the destiny of these relationships (Esposito & Passaro, 2009, Gangwar & Raghuram, 2015, Khoteeva & Khoteeva, 2017, Van Den Hurk & Verhoest, 2016, Boyer, 2016). Accordingly, fragmented studies in the literature have referred to the appearance of dissatisfaction between partners, which threatens the life-cycle of the collaboration due to a range of behavioural factors such as conflict, poor mutual communication, opportunistic behaviour, unaligned partner objectives, distrust, and a lack of commitment (Bashir et al., 2015, Moncaster, 2012, Van Den Hurk & Verhoest, 2016). It is therefore, not surprising that management teams and academics have limited comprehension of what makes the performance of the railway collaborations successful.

Equally, there is criticism for conducting studies to determine the reasons for the failure of collaborations and advocating more investigations to clarify this issue. While efforts have been conducted to understand the successful ingredients of the partnerships, the empirical findings have been far from conclusive (Ab Talib et al., 2015, Kumar et al., 2015, Dania et al., 2018, Jefferies et al., 2014, Meng, 2012). Besides, many of the challenges in managing behaviours inside UK railway collaborations, such as inadequate interpretative frameworks to deal with behaviours, development and ongoing competitive scenarios, along with partner relationship failures which are reflected in insufficient timing and delivery of the project effectively, stem from a lack of attention paid to the research around these partnering issues (Akintoye & Beck, 2009, Van Den Hurk & Verhoest, 2016). Consequently, motivating UK railway managers to understand the influence of behavioural factors on a project's performance will assist in the development of more effective alliances in the future.

Academically, there have been several efforts associated with railway collaborations in the UK, with most research concentrating on the determination of motivations behind partner formation and selection, as well as the specifications of critical success factors (Chuang & Thomson, 2016, Chen et al., 2012, Akhavan et al., 2015, Jefferies et al., 2014, Denolf et al., 2015). Whilst, studies that focus intensively on behavioural factors are still scarce. Although, Olsson & Espling, (2004) provided recommendations regarding the importance of dealing with behavioural factors, such as trust, commitment, knowledge sharing and mutual communication, to achieve successful performance of railway partnering. Most of the studies that have been carried out concentrate on various factors that may have an influence on partnering performance (Love et al., 2010, Walker & Hampson, 2008).

Although there is no doubt that several studies have contributed to the exploration of behavioural factors in collaboration strategies related to the construction industry, railway sector and different fields, as provided in Table 2-3, there are scarce studies in the railway collaboration literature, that support the

notion of strategic alliance performance success within these sectors. On the other hand, there are loud voices acknowledging that the application of (PPPs) and partnerships in the railway sector often cannot achieve the targets of the cooperated parties, due to complexities during the implementation of arrangements, which can lead to further potential problems in relationships. In addition, the employment of PPPs and partnerships, face crucial structural challenges due to the maturity of the railway sector and its technology base, along with its obligations, behaviour management of partners, the background of its players and the strong incentives for integration due to economies of scope (Van Der Geest & Nunez-Ferrer, 2011, Williams, 2010). Furthermore, Khoteeva & Khoteeva (2017) revealed that there are critical issues during the employment of partnering projects, which are often represented by the appearance of signs of tension during implementation of the strategy. As once they are operating it often becomes hard to obtain guarantees for achieving the aligned partner goals, which reflects in a reduced level of commitment required and limited sharing of essential resources.

With regards to the challenges being faced by the PPPs and partnerships in the infrastructure industry, Akintoye & Beck (2009) & Van Den Hurk & Verhoest (2016) have presented a number of criticisms. Firstly, despite the appearance of multiple conflicts regarding the financial and operational performance, the PPPs have continued to be implemented within this sector, thus leading to mis/distrust between partners and a lack of behavioural satisfaction. Secondly, governments are still suffering from managerial and operational issues when implementing PPPs and partnership strategies. Thirdly, these issues reflect negatively on the maintenance of linked partner behaviours within the process of partnering. Furthermore, the sharing of knowledge is hindered by the complexity of these types of collaboration, which could be linked back to the nature of the contract (Boyer, 2016).

According to the role of behaviours in the success or failure of strategic alliance performance, behavioural factors fall into two categories; behavioural success factors and behavioural negative factors. These two types comprise of two ends of a continuum, and each can deliver or result in failure of the alliance performance. Therefore, the adoption of these factors is considered a strong case for conducting an empirical study to evaluate their impact on the performance of strategic railway alliances in the UK. With the aim of identifying the main challenges which encourage or exacerbate existing negative behavioural factors, whilst motivating efforts to provide indicative actions that can address and enhance the ability of adopting behavioural success factors properly. Furthermore, using other types of collaboration strategies to compare and create estimates for operational expenses, such as insufficient sharing of information, knowledge and resources between public and private partners, which can lead to the appearance of misunderstanding. Therefore, this research seeks to address a gap in the existing

practices and literature through the evaluation of behavioural factors during the stages of implementing a strategic alliance strategy until the delivery of the project via the development of achievable strategic guidelines and a directed framework for the UK's railway sector, to aid comprehension of the main behavioural factors that impact the performance of SRAs.

## **1.2 Research Gap and Justification of Research**

It should be taken into consideration that all the challenges faced by the UK railway sector as mentioned in section 1.1 above, could be attributed to the nature of the railway sector or the parties' behaviours and strategies implemented, as critically it is a multifaceted sector that consists of several companies bound by formal contracts or agreements, based on a charter to implement the project. Therefore, the alignment of these organisational backgrounds brings various experiences, behaviours, cultures and work ethics, whilst failure to align these principles within the railway sector might contribute to the misunderstanding of varying goals and causes during implementation of the project. Additionally, this issue can result in friction between the railway team and might result in more adverse relationships and distrust. Also, the compilation of these principles will represent the main motivators that determine partner behaviour within an alliance and what their responsibilities and duties towards relationship success are.

There have been several studies that are strongly linked to studying behaviours and recognising the main behavioural factors that can deliver the process of railway collaborations, by inheriting achievements from project relationships (Van Den Hurk & Verhoest, 2016, Khoteeva & Khoteeva, 2017). However, specific behavioural factors in SRAs in the UK have not received proportionate attention. Additionally, there is a gap in relation to the role of behavioural factors on performance success within the current railway alliance literature in the UK (Akintoye & Beck, 2009, Van Den Hurk & Verhoest, 2016). Accordingly, this research strives to address this gap in knowledge, by evaluating the impact of behavioural factors on the performance of SRAs in the UK. Through the understanding and awareness of motivations and benefits related to strategic railway alliances in the UK, this research will develop strategic guidelines and a framework to determine the impact of behavioural factors on performance from the stages of infrastructure and construction until the delivery of the completed project. An emphasis will be placed on understanding behavioural factors, such as trust, commitment, and knowledge sharing, which greatly assist the building of positive relationships inside SRAs and are particularly important in enhancing alliance performance (Chang et al. 2011). Ultimately, this research seeks to highlight and provide specific insights into the evaluation of behavioural factors that impact on the performance of SRAs in the UK.



In order to reach a robust comprehension of the current phenomenon, and align with the implementation of strategic alliances in the railway sector currently, Network Rail, which maintains, develops and operates Britain's railways, has established a Strategic Business Plan, which strongly supports strategic alliances with other train, freight operating and infrastructure companies (NetworkRail, 2019a). For the purpose of this research, SRAs in the UK were selected as the central theme, to enable the conduct of in-depth exploratory research. The justifications for this choice are; firstly, that the railway sector in the UK has experienced a period of partnerships and the use of PPP strategies, yet it is still suffering from multiple implementation gaps based on the issues mentioned previously. Secondly, there is currently no UK study that has been conducted with regards to a strategic alliance strategy, although there are projects that have already started using it to deliver the infrastructure. Thirdly there is currently no available study that has explored behavioural factors in the UK railway sector, despite the importance of studying partner behaviour and how this data can aid and encourage commitment to the achievement of one goal and project. Finally, there is no current study that has been conducted using a mixed-method, sequential exploratory research approach to obtain knowledge and understanding of the behavioural factors in SRAs in the UK. (Further details with regards to the research methodology, will be detailed in Chapter 3).

### **1.3 Rationale/ Research Questions**

Alliancing partners are considered as one of the main components for strategic railway alliance relationship success. With the behaviours of partners as factors that influence their daily interactions either consciously or subconsciously. As the railway sector is composed of companies from various specialities, there exists different types of backgrounds and behaviours, that can affect interaction between companies within a railway project. Therefore, one research question was developed to identify whether there was a way to align all these behaviours in an alliance relationship, to ensure the success of alliance performance implementation. As the behaviours are an integral factor in relationship creation and strategic alliance formation, which will impact on the successful performance of a strategic alliance between companies. From this standpoint, this research will focus on the current strategic alliance phenomenon in the UK railway sector by answering the following research questions.

1. What are the significant behavioural factors that enhance the success of the performance of SRAs?
2. What are the negative impacts of the behavioural factors that affect the performance of SRAs?
3. What are the main motivations and benefits of using a strategic alliance in railway sector?
4. How can behavioural factors be evaluated in order to achieve goals in the SRAs?

5. How will the research outcomes contribute to academia on strategic alliance and enhance the performance of railway practitioners?

## **1.4 Aim and Objectives of the Study**

### **1.4.1 Aim**

The primary purpose of this study is to develop a strategic guideline and a framework for strategic railway alliance clients in the UK, to enhance performance through identification and promotion of behavioural success factors whilst inhibiting negative behavioural factors.

### **1.4.2 Objectives**

1. Explore the concept of strategic alliances and how it is being utilised in the railway sector in the UK.
2. Critically review literature on SRAs behaviours.
3. Discover the main motivations and benefits for the SRAs in the UK.
4. Identify and evaluate behavioural success factors and behavioural negative factors that impact on the performance of SRAs in the UK.
5. Develop a strategic guideline and a framework for enhancing the performance of SRAs.

## **1.5 Scope of the Study**

Considering the aim of this research, which is to develop a strategic guideline and a framework for SRAs in the UK, this section provides a brief explanation of the concept and its underpinnings for selection of the Northern Hub Alliance (NHA) in Manchester as a case study. The unit of analysis for this research is the impact of the behavioural factors on the performance of SRAs in the UK. This selection is fundamentally related to the development of National Rail Networking (NRN) and relief of congestion in the centre of the train network in Manchester specifically and Manchester to Leeds generally, as well as the 3D bridge established, which is considered iconic among Northern England projects (see Figure 3-2 and see Section 3.2). The UK has a wide range of rail networking infrastructure varying across the regions with different types of trains. By understanding the nature of rail networking infrastructure and its advanced operating systems, along with its staff and clients, the outcome of this research can assist towards enhancing awareness for the proper creation, design, management and implementation of a strategic alliance projects.

This research focuses on a group of managers who are in charge at (NHA), and it aims to identify key behavioural factors that impact the (NHA) as a case study. In addition, it is important to involve the group of (AMT) to obtain information from highly experienced managers, who are considered categorised experts in the field of the construction industry. Moreover, the second half of the data collection was carried out with the staff of the alliance from departments and operational levels based on the alliance hierarchy.

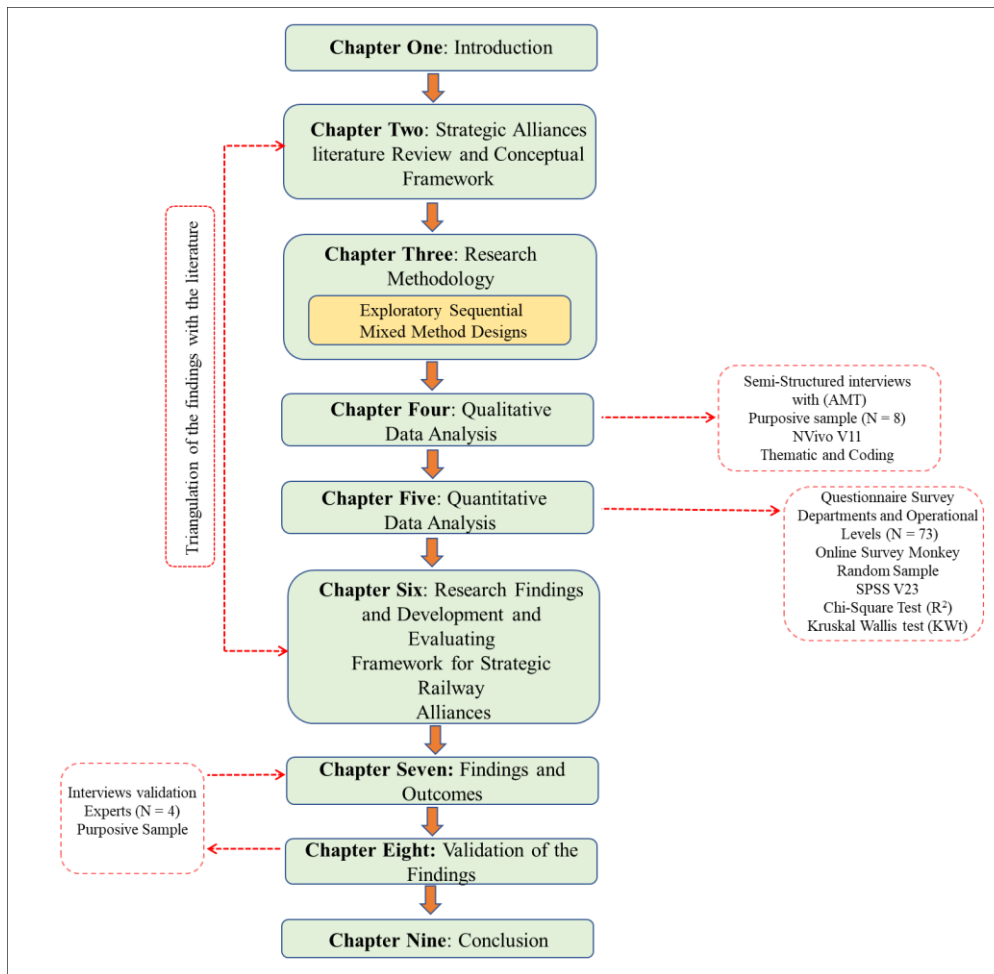
The data collected and analysed concentrates on the identification of behavioural factors that can affect the success of the performance of a SRA in the (NHA). The exploration is limited geographically to within the Manchester region in the UK. As it provided in-depth information, advice and guidelines based on experienced managers within companies that have effectively run a SA, as well as providing details of factors that could have a negative impact and should, therefore, be avoided. Moreover, the provision of benefits and the research's outcomes can be used for other developed and developing countries and this is highly recommended as and when it is necessary.

## **1.6 Research Methodology**

This research considers an exploration guided by the research questions and objectives. The design of this empirical research is based on Saunders' 'Research Onion' model, where the levels of conducting research methodology adopt a pragmatic philosophical stance, with procedures that are suitably appropriate for the research purpose and that can fulfil the research questions generated. Through an understanding of axiology, the research leans towards being value-laden (see section 3.3.4), with an abduction approach selected as the best choice for conducting this research through a case study research strategy (see section 3.3). A single case study of the Northern Hub Alliance (NHA) is used which evaluates the impact of behavioural factors on the performance of SRAs in the UK as a unit of analysis (see section 3.6.6). Moreover, a mixed-method approach was utilised to collect data from the managers at (AMT) working in (NHA), as well as participants working in both the middle and operational level in this alliance. Then, the research adopted a cross-sectional time horizon with views regarding the evaluation of the behaviours of partners in the phenomenon under study.

## **1.7 Thesis Structure**

The structure of this research is categorized into nine chapters, which are illustrated chronologically in Figure 1-1 below.



**Figure 1-1 Research Process**

*Chapter 1* introduces a general context of the current research, it includes the research background, justification of research, research questions, aim and objectives, and the scope of the research. Accordingly, the methodology which is employed in this research is presented as a brief summary.

*Chapter 2* summarises the literature review of the construction industry generally and specifically railway industry which is explored in the current research. This chapter provides definitions, main theories in strategic alliances, strategic alliances management, strategic alliances life-cycle, key BSFs and BNFs, that can influence the performance of strategic alliance, the justification for selection the UK as the research area and conceptual framework.

*Chapter 3* describes the methodology employed in this empirical research step by step. This chapter discusses the philosophical stance of this research, the research approach, choice and strategy, time horizon, data collection techniques and the reliability and validation procedures.

*Chapter 4* presents key findings from the data analysis of experts' interviews, to explore the key motivations and benefits that encourage railway companies to create alliances and it also explores the main behavioural factors that impact on the performance of SRAs.

*Chapter 5* provides findings and interpretation of analysing the questionnaire survey data collected to confirm importance and role of the motivations, benefits and behavioural factors faced during establishing the strategic alliance and its influences on the SRAs performance. accordingly, this chapter presents the tests and procedures adopted to analyses the data.

*Chapter 6* presents the discussion of the findings of this empirical research by comparing the results of the experts' interviews, questionnaire survey and link with concepts of the literature review.

*Chapter 7* presents a strategic framework and a guideline which are targeting to enhance the performance of SRAs.

*Chapter 8* Provides the process and procedure of conducting the research validation with the description of the interviewees and their suggestions that can enhance the clarity of the strategic guideline and framework to be understandable and achievable.

*Chapter 9* provides the salient conclusions of the research by linking the research objectives with the entire research findings. It also reveals a fundamental part, which is to identify the contributions of this research to the knowledge, theory and practice of SRAs, along with the limitations of this research and further future research suggestions.

## **1.8 Chapter Summary and the Link**

This chapter has comprised of a general overview and has focused on the introduction of this research. It has identified the background, problem statement, research questions, aim and objectives and a brief explanation of the research methodology. The chapter that follows is a review and synthesis of the literature review for this research.

## **Chapter 2 Literature Review**

### **2.1 Introductions**

Chapter 1 illustrated the outset of research background, justification of research, aim, objectives and scope of the research. The current chapter sums up the state of art and determines the main concepts related to the field of this research to be deeply explored in the current research. The current chapter provides a description of the construction and railway industry in general, how it contributes to the present world economy. Then, the definitions of the collaboration strategies concepts are also provided. This chapter progresses deeply to define and evaluate the concept of strategic alliance strategy, the mechanism of its management and life-cycle of strategic alliance concept. The BSFs which are commonly contributed to delivering the performance of strategic alliances successfully are provided logically. The discussion proceeds to identify the BNFs which influence the performance of strategic alliances. Additionally, the UK railway collaborations are discussed and the need for adopting collaboration strategies. then, the gaps in the knowledge of this research are addressed thoroughly. Ultimately, a concentrated summary of key findings emerged from the intensive exploration for the literature review is provided at the end of this chapter.

### **2.2 The Construction Industry**

The contribution of the construction industry in the world economy is considered highly significant. The services and products of this industry provide the fundamental resources, infrastructures and important physical structures for multiple daily activities such as services, railway networking, building, utilities and various other industries. The importance of this industry is not just producing products, but it also responsible for employing trained persons, then leading to a large effect on the economy of a country through the actual processes of construction (Staykova and Underwood, 2017). This argument supported by (Dlamini, 2012) that there is a strong relationship among the processes of the construction industry and economic growth, this importance determined in terms capability of this industry in provision capital infrastructure, government revenues, provision benefits for undertaking investments and so for.

Nowadays, the health of the global construction industry is recovering after the economic crisis between 2007 to 2009, where countries and developed countries in specific are taking advanced protection procedures to ensure being continued with ambitions of the construction industry in developing (Oyewobi et al., 2015, Chen et al., 2012). According to Baldauf-Cunnington and Hubbard, (2011), Akhtar et al.,

(2016), the policy in the developed countries has constrained all procedures of lending and financial measures in order to address the deficits gaps in the budget to specify a major influence to draw a bright future for the construction industry. In contrast, the movement of the fast-growing countries such as China, Korea and Taiwan, and pressure of population increased will drive the direction toward motivating the investments in the built environment which is open the bath for governments to pursue fiscal plans and control it. Contrastingly, the construction industry in developing countries such as Malaysia, Vietnam considers highly important, where cannot be allowed to stagnate or even to be declined. Soekiman et al. (2011) emphasised that the pressure of trade liberalisation within the construction industry will achieve a radical improvement in processes of the construction industry.

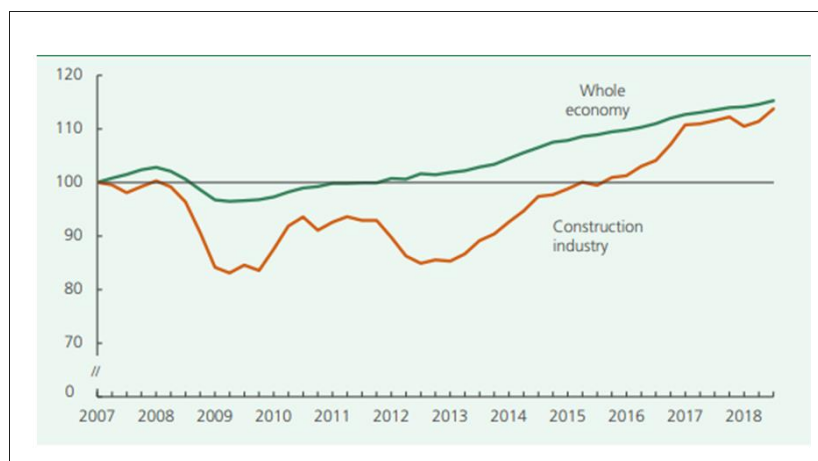
It is important to emphasise that the construction industry can be classified into several fundamental sectors such as infrastructure, building, architecture and so for. The essentiality of these sectors requires a large sum of budget, resources (tangible and intangible) and an exact schedule for delivering construction project, due to the complexity of its activities. According to the complexity of construction activities, diversity of the construction sectors and collaboration strategies applied, it is easy that the industry players confronted behavioural challenges such as conflicts, behavioural opportunistic and numerous issues. These challenges often happen due to the misunderstanding of tasks and processes roles or might be implementing duties by inexperienced managers (Adnan et al., 2008, Zhang et al., 2016). Due to the significance of the construction industry, it is more important to identify and classify the main players within this industry.

There have been many attempts to define and classify groups of the construction team. Two classifications which can be considered related to the purpose of this research will be discussed to realise the similarities and gain a deeper understanding in regard to the nature of the composition of main players in the construction industry. The classification of Hughes et al., (2015) noted, how each professional participant try to concentrate on their own practical contribution and how it relates to other participants in the project team. The fundamentality of this classification to show the capability of the construction industry in delivering the services to the client then society in general, considering the diversity of function for each player within the construction team. The main dominant groups of the construction industry based on this classification of this study are namely designers, regulators, builders, purchasers and users of buildings.

Although the clarity of the classification made by Hughes et al., (2015) which has determined the types of groups and their roles are involved in the construction industry. Gann and Salter (2000) provides more focused classification which refers to relationships of the construction industry groups established

within networks which is the construction industry built upon. This author classified the construction industry groups into five types namely the regulatory and institutional framework, supply chain, project-based companies, projects and technical support infrastructure. Each of these groups classified has substantial tasks and functions capable to deliver a construction project successfully. The connection networking between various players in the construction industry requires distinctive coordination and behavioural interaction between partners cooperated. This confirms the aim and objectives of this research regarding the importance of evaluating the parties' behaviours within the process to ensure delivering the performance of the collaboration successfully.

In order to comprehend the main contribution of construction to the economy, it can be seen that the output of this industry has been fallen more significantly during the financial crisis in 2008 and 2009 than the economy as a whole and has recovered more slowly since then. Construction industry output has been grown somewhat in 2010 and 2011 before falling again in 2012 to almost the low seen during the recession 2009. Between late 2012 and early 2017 has been happened sustained growth in this industry output. This sector surpassed its pre-recession peak in Q4 2015. Whereas, in Q3 2018, the output of this sector was 14% higher than in Q1 2008 (output in the whole economy has grown by 15% over the same period) (Rhodes, 2018). Figure (2-1) shows the contribution of the UK contribution industry to the economy.



**Figure 2-1 Contribution of the UK Construction Industry to the Economy (Rhodes, 2018)**

Additionally, the annual data of the construction industry output is presented in the following Table (2-1).



**Table 2-1 Contribution of the UK Construction Industry to the Economy (Rhodes, 2018)**

<b>Construction sector's contribution to the economy</b>				
<i>Gross Value Added</i>				
	£ billions (current prices)	£ billions (2016 prices)	Real % change on year	% of economy
1997	45	81	...	3.7%
1998	49	82	1.5%	3.9%
1999	50	83	1.3%	3.9%
2000	57	84	0.9%	4.3%
2001	59	85	1.8%	4.3%
2002	68	90	5.7%	4.9%
2003	71	95	4.8%	4.9%
2004	74	100	5.3%	5.0%
2005	82	97	-2.4%	5.4%
2006	89	98	0.8%	5.7%
2007	95	100	2.2%	5.9%
2008	90	97	-2.6%	5.6%
2009	77	85	-13.2%	5.0%
2010	81	92	8.5%	5.2%
2011	85	94	2.2%	5.4%
2012	87	87	-6.9%	5.4%
2013	91	89	1.5%	5.6%
2014	97	96	8.8%	5.8%
2015	102	101	4.4%	5.9%
2016	105	105	4.1%	6.0%
2017	113	112	7.2%	6.3%

Sources: ONS, GDP estimates, Low Level Aggregates table  
ONS series KKI3, KKP5, KL9D

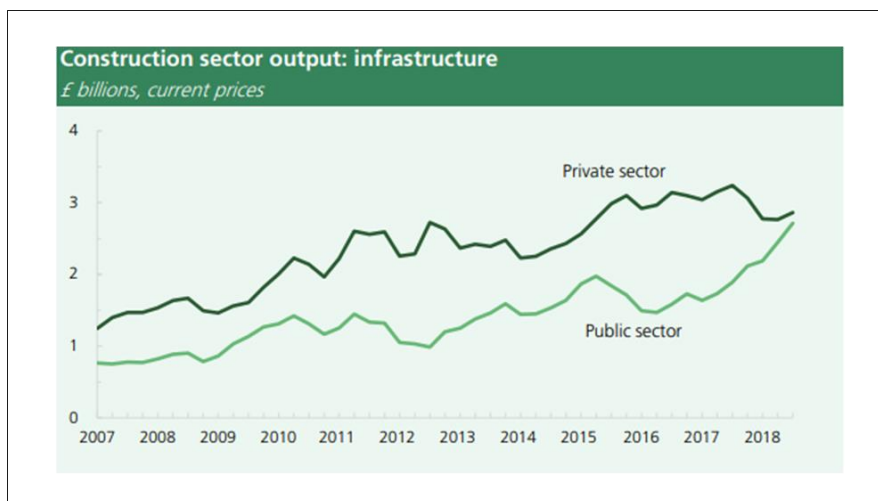
Therefore, the nature of segmentation of the construction industry is related to the diversity of specialities and functions working together to deliver construction projects, which refers to several of parties' backgrounds and behaviours cooperated. As mentioned above that the construction industry in general divided into several sectors such as infrastructure, building, architectural and so for. Because of the importance of the infrastructure and railway networking in developed countries through delivering large projects which can be considered essential to developing society, and also the importance concentrating on exploring the role of partners' behaviours in delivering construction projects. This sector based on its importance within the construction industry will be discussed in the following section.

### **2.3 The Railway Sector**

Railway has been considered one of the old and most essential modes of public transportation. The importance of this sector represents by transporting both passengers and freight. Further, it is a vital sector where contributes hugely to economic growth. The first appearance of it in the 1800s, while the railway sector worldwide has enormous innovations and engineering developments (NetworkRail, 2019a).

Recently, the worldwide railway sector is experiencing incredible growth related to market demand and capacity supply. However, these new developments brought several challenges as well as opportunities. Although the rapid development, railway sectors have been confronting several challenges such as operating new directions, establishing new stations and bridges and increasing capacity of trains. Therefore, the concentration of the large railway sectors turned toward developing strategies of businesses collaboration and mix multiple companies based on its specializations to implement huge projects to cope dynamicity of rapid developments and making railway networking highly robust (NetworkRail, 2019a, NetworkRail, 2019c).

To determine the contribution of the infrastructure sectors to the UK economy, it is noticed that private sector infrastructure output has increased over the past decade, at roughly the same rate as public sector infrastructure orders. However, since 2017, public sector infrastructure output has been increased much more quickly. In the last quarter, the difference between public and private sectors infrastructure outputs have narrowed considerably and public sector outputs have increased. In Q3 2018 private sector infrastructure outputs totalled £2.9 billion, and public sector infrastructure outputs totalled £2.7 billion. Figure (2-2) illustrates the main contribution of the infrastructure to the UK economy (Rhodes, 2018).



**Figure 2-2 Contribution of the Infrastructure Sector to the UK Economy (Rhodes, 2018)**

Strategic planning of the railway companies in developed countries specifically, conducted a fundamental group of policy decisions to meet the large future demand on increasing the services of the railway, enhance its capability to gain highly satisfaction and improving innovative capabilities and sharing required knowledge intensively. Massive investments and long-term plans have been taken such as establishing collaborations with high experienced companies, constructions new lines and destinations, connecting far areas by developing new stations (Railway, 2014a). The time horizon for these plans has been taken several years through conducting a feasibility study for the number of resources required,

determining particular aims of designing sufficient structure to achieving strategic planning, in order to meet market and competitive requirements.

Managing tactical planning stage is started through intermediate phase management which targets to translates strategic decisions of developing railway sector into actual plans related to each destination required development via scheduling time frame for conducting work, selecting proper companies for collaboration. Taking into consideration operational control procedures which are concerned with short-term of operations, weekly plans achievement and dealing with disruption and disturbances relating to participants behaviours or daily work routine (Railway, 2014b).

The essential stage which represents managing the long-term is started achievement of strategic plans. This phase is relevant to developing mechanisms to manage collaboration intensively across cooperated companies, follow transferring resources and technological capabilities during project achievement and continuous assessment for planned performance. Achieving strategic planning has been taken a variety of collaboration strategies such as joint venture, partnerships, public-private partnership (PPP) and so for. In this research and in next section discusses briefly the definitions the terminology of these strategies, then intensively discovering for the meaning of the strategic alliance strategy which is considered important in this research according to what has provided within the background of research problem and how implementing this strategy that could help to deliver the performance of the railway projects successfully.

### **2.3.1 Importance of Collaboration to Railway Sector**

With increasing the expenses of the railway sector on construction, renewals and delivering railway projects compared with previous decades, Tucker, (2009) argued that the ability to enhance contractors' efficiencies lies by applying fundamental way through linking relations between participants on the idea of collaboration and partnership. The author identified the main areas that can achieve improvement by applying these strategies such as in planning, proper use of possessions, standardisation of required asset configuration and determine accurately the quality of the asset condition. With a number of geographically distributed of projects across the railway network, a collaboration of efforts of delivering projects is essential for fulfilment value of money expensed. Also, the critical success of the implementation of this strategy is the ability of gathering of a collaborative partners' backgrounds and cultures within one entity and integrating information systems throughout the collaboration to allow partners to use of possessions and the design of new connection lines that linked with the existing infrastructure (Kapogiannis and Mlilo, 2019).

According to Rahman, et.al (2014), despite the apparent gap and lack of clear guide of the process during the adoption collaboration between main contractors and subcontractors especially in the beginning, but partners realised that by applying this type of strategy becomes sharing information and knowledge is a key element of project delivery and contractual relationship. Furthermore, Cowie and Loynes, (2012) added that this strategy enables to enhance organisational performance and delivering railway projects smoothly through managing the entire process of participants, information shared.

Through increasing the challenges of implementing railway projects, leaders recognised the need to be adapted with change. Railway asset sharing and maintenance, previously achieved with a complex operational environment with various asset maintenance disciplines undertaking other works. Aligning with, maintenance of railway tunnels was complicated by limited materials, designs, ideas and spaces (Kapogiannis and Mlilo, 2019). As a result, according to Hawkins, (2017) explained that in 2010 noticed a step-change in the UK railway leaders' thinking, where the new way of planning has targeted toward encouraging clients to adopt collaborative strategies which its benefits considered a key for main programmes. Because by reviewing the biggest delivered projects in Europe, for instance, have attributed a huge success so far, delivering projects timely without any overestimated costs. Also, collaboration facilitates for partners to develop and adopt an advanced innovative approach by sharing data management for enhancing the efficiency in project delivery (MacDonald, 2016). By adopting collaboration, the level of understanding between participants has increased which reflected on achieving cooperated behaviours of partners (Cowie and Loynes, 2012). Therefore, by highlighting the concept of collaboration, it should demonstrate the nature of this concept and what is the main strategies being relevant within this concept. The next section shows the fundamental definitions and types of collaboration strategy.

## **2.4 Definition Concepts of the Collaboration Strategies**

The appearance of Several formations inter-organisational collaborations in the business market in general and in the construction industry in specific, where searching these formations to meet the massive increase for the resources, new efficiencies and confronting competitiveness (Bidabadi et al., 2016). Taking the decision of operating collaborating represents by applying a legal and social mechanism to govern the relationships between a number of multiple backgrounds of parties to coordinating experiences, administrative responsibilities, division of rewards equally based on joint activities and safeguarding resources of the parties' cooperated. Variety of collaboration strategies types can be explored intensively in the following Table 2-2 (Knoke, 2018p. 121-128).

**Table 2-2 Variety of Concepts of the Collaboration Strategies**

<b>Hierarchical Relations</b>	Through acquisition or merger, one firm takes full control of another's assets and coordinates actions by the ownership rights mechanism
<b>Joint Venture</b>	Two or more firms create a jointly owned legal organization that serves a limited purpose for its parents, such as R&D or marketing
<b>Equity Investments</b>	A majority or minority equity holding by one firm through a direct stock purchase of shares in another firm
<b>Cooperative</b>	A coalition of small enterprises that combine, coordinate, and manage their collective resources
<b>R&amp;D Consortia</b>	Inter-firm agreements for research and development collaboration, typically formed in fast-changing technological fields
<b>Strategic Cooperative Agreements</b>	Contractual business networks based on joint multi-party strategic control, with the partners collaborating over key strategic decisions and sharing responsibilities for performance outcomes
<b>Cartels</b>	Large corporations collude to constrain competition by cooperatively controlling production and/or prices within a specific industry
<b>Franchising</b>	A franchiser grants a franchisee the use of a brand-name identity within a geographic area, but retains control over pricing, marketing, and standardized service norms
<b>Licensing</b>	One company grants another the right to use patented technologies or production processes in return for royalties and fees
<b>Subcontractor Networks</b>	Inter-linked firms where a subcontractor negotiates its suppliers' long-term prices, production runs, and delivery schedules
<b>Industry Standards Groups</b>	Committees that seek the member organizations' agreements on the adoption of technical standards for manufacturing and trade
<b>Action Sets</b>	Short-lived organizational coalitions whose members coordinate their lobbying efforts to influence public policy making
<b>Market Relations</b>	Arm's-length transactions between organizations coordinated only through the price mechanism
<b>Partnership</b>	A set of behaviours and backgrounds of a number of companies are gathering in order to share resources, capabilities and responsibilities to achieve a common objective and perceived benefits
<b>Public-private partnership</b>	Cooperation between the public and private sectors targeting to achieve a common goal and delivering a public project through presence appropriate allocation of resources rewards and implementation risks

Accordingly, implementing a collaboration strategy means the formation of network relationships, where parties are ultimately being related to creating social capital (relations). However, collaboration and social relationships are closely related, but not homogeneous. If the relationships prove not beneficial for achieving parties' objectives, turned instead into challenges impact the collaboration performance, then, it constitutes a social liability (Gabbay and Leenders, 1999). Linking from this angle, thinking to establish strategic alliance strategy has been come to support the thinking of the business literature concepts by emphasising on the role of human behaviours and intangible assets which are accumulated within organisations (Michael et al., 1995, Russo and Cesarani, 2017). The philosophy of the strategic alliance asserts on developing three types of investments namely, knowledge capital which represents improve human understanding and behaviours and sharing intangible assets successfully. The capability of improving human behaviours and sharing intangible assets within the boundaries of the alliance enables to maximize the level of production, reduce the range of competition, increase the profits and improve the capabilities and skills of individuals. Further, adopting a strategic alliance perspective implies creating

interdependence relationships among autonomous organisational units, which can be bringing huge benefits to the partners in the shape of intangible resources (Ayoub et al., 2015, Yang et al., 2014). From this point, therefore, the importance of conducting strategic alliance is being explicit and become a necessity to be applied within the business's projects generally and in construction and railway projects specifically. The concept of strategic alliance will be discussed in the next section.

#### **2.4.1 What is a “Strategic Alliance”**

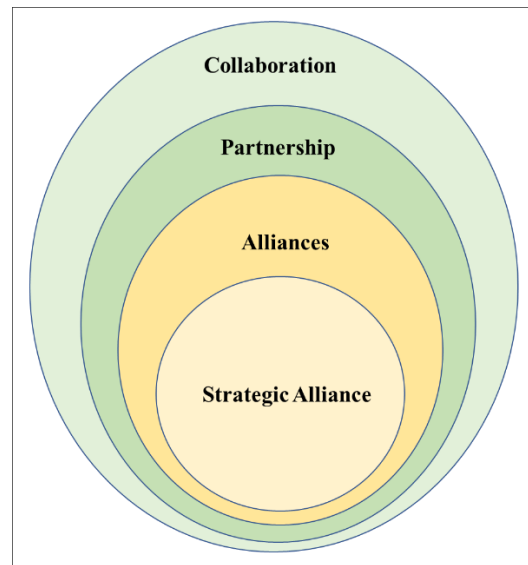
Variety forms of collaboration concepts are clearly provided in Table 2-1, which are presenting naturally the differences between these forms. Although the collaboration between companies is an old businesses phenomenon but still there are debate that what is the difference between all these of collaboration forms and the strategic alliance concept with increasing the number of this type of strategy.

By reviewing section 2.4.2, it can be seen from the definitions that some of the researchers still describing the strategic alliance concept as a collaboration between organisational entities (Das and Teng, 1998). And some of them emphasising on the principle of sharing complementary resources within the strategic alliance borders (Li et al., 2013). From this research's point of view, however, it is most important to determine the difference between all definitions are provided above and the use or applied concept of strategic alliance. existing collaborations literature does not intensively emphasis on distinguishing among “collaboration concepts” and “strategic alliance” ones. By reviewing these concepts, it must at least consider that not all collaboration alliances “strategic”, thus there needs to be a clear distinction among strategic alliance and the rest of collaboration forms.

1. Establishing strategic alliances (either formal or informal) which can ensure long-term competitive positions for partners which can improve their operational capabilities and efficiencies.
2. Strategic alliance implies integration for partners' behaviours, resources, knowledge and skills to deliver one common goal and one project.
3. It is clearly linked to the strategic intent, strategic orientation, strategic vision, mission and strategic objectives of partners.

Therefore, the distinction between main concepts of collaboration (alliance, partnership and collaboration) depends on the type and nature of relationships between partners. Hence, an alliance considers any cooperation between two companies. Additionally, through the practical view, every day of the alliance life business considers much more than just some random collaboration. In this vein, the partnership can be in between a formal alliance and ad-hoc collaboration (Steinilber, 2013). Therefore,

a strategic alliance is the deepest form of collaboration, according to the contingent hierarchy of collaborations strategies indicated that strategic alliance is located at the top level and identified as the core and strongest expression of collaborations, alliances and partnerships where is allowing achievement strategic goals (Kinderis and Jucevičius, 2013). the hierarchy of collaboration strategies and the position of strategic alliance can be seen in Figure 2-1.



**Figure 2-3 Hierarchy of Collaboration Strategies and Position of Strategic Alliance**

### **2.4.2 Definition of Strategic Alliances**

The number of strategic alliances has increased dramatically since the late 1970s, particularly in technology industries (Moghaddam et al., 2016). Strategic alliances have been increasingly used as means to manage the practical risks and improving market performance (Lee et al., 2010). Thus, alliances could be achieving success in environmental instability through sharing of crucial information among partners, identifying reciprocal responsibilities, control partnership implementation, and assess the outcome of alliance (Li et al., 2013). In order to realise the concept of strategic alliances, many researchers in the literature have defined this concept. Das and Teng (1998) defined strategic alliances as inter-organisation collaborative arrangements whose purpose is to achieve strategic targets of partners. The benefits of strategic alliances are commonly seen as knowledge sharing and learning, inter-firm risk sharing, asset complementarity and fulfil market power (Bouncken et al., 2014). Alliances along the supply chains among suppliers and manufacturers, services providers and their clients, particularly allow the allied firms to take on dynamic capabilities, develop product innovation, and finally increase their competitive edge. In a similar way, Li et al. (2013) states that strategic alliances are facilitating access to partners resources,

absorb sufficient knowledge, to maintain and develop abilities by combining skills with their partners in order to minimise costs that appear from cooperative risks.

Therefore, Nielsen and Nielsen (2009) agreed with this view that a function of strategic alliances help the managers within the alliance to generating the realisation to improve their capabilities by providing better products and services through the possibility of obtaining access partner's technology, or achieving effective skills and knowledge. Collaboration among partners within supply chain is considered as cooperative inter-firm agreements, therefore its facilitate partners to access to other partners complementary resources (Berghman et al., 2012). In the same vein, alliances thus provide complementary resources and facilitate reciprocal capabilities. Ultimately, providing better product innovation and enhance joint product innovation can be achieved by the focus on the rate of novelty and uniqueness which is given to the market by the innovation. The product innovation involves the main process which takes further advantage of creative and interactions between firms that are associated together operative and dynamic resources (Zhao and Lavin, 2012). Also, (Chen et al., 2015, Chan et al., 1997) indicated that strategic alliances can be defined when two or more firms cooperate involving a partnership through agreement which identify sharing resources in production, marketing, and IT technologies thereby benefiting from mutual participation for all partners, more specifically, strategic alliances are considered as a type of dynamic capability that support firms with external resources that would have been missed (Ma et al., 2012). In other word, cooperative alliance is working as an incentive for partners to increase trust and commitment by providing others members resources to maintain the relationship, and also, by reducing competition level among partners that will lead to an enhanced feeling of trust and a higher commitment to work together, indeed collaborative firms have found alliances to be a good step to maintain lower overall costs, as well as obtaining greater trust internally between workers (Holt et al., 2000). In summary, through reviewing a number of strategic alliance definitions, this research has reached to define a strategic alliance as:

1. An agreement (either formal or informal) ...
2. Between two or more (companies or other organisations) ...
3. To share resources, skills and capabilities, and collaborate within one or several areas of business...
4. To achieve strategic goals in the long-term period.



Adopting strategic alliance did not come from nothingness but there are multiple theoretical approaches motivated the efforts of researchers to develop this type of collaboration strategies. the next section will elaborate a group of theories related to the strategic alliance strategy appearances.

## **2.5 Main Theories in Strategic Alliances**

Antecedents of academic research on strategic alliances stem from different theoretical approaches that provide contrasting views on both antecedent's research of the alliances and the capability to evaluate of the relations among companies. Transaction Cost Economics Theory and the Resources View Theory, which can be considered as the primary concern for this research, will be overviewed first, analysed, the remaining theoretical bases on alliances will be summarised.

### **2.5.1 Transaction Cost Economics Theory**

Transaction cost theory was first attempted to explain strategic alliances strategy by (Williamson, 1975, Williamson, 1985, Williamson, 1991). The assumption of this theory is that integrated decision makers usually concerned by minimising the transaction costs and production costs (Williamson, 1985). Hence, transaction costs stem from exchanges conducted by businesses activities, while production cost results from organising, coordinating and monitoring indoor activities. Transaction cost theory can be chosen by organisations through writing contracts with other organisations in order to regulating exchange complementary assets, and hierarchy. Organisations can create the contracts with partners, suppliers, which are negotiated either on a short-term or long-term foundation, in order to secure products and services from immediate markets transitions. In industries climate, the power is usually connected capacity of markets and capability of firms who own the resources and economics scale and scope, amount of rare innovations which are owned, markets needs and firms positioning strategies should be stable (Li et al., 2013). Organisational stability within dynamic environment that will make partners seek to gain sufficient information, clarify mutual responsibilities, monitor the process of cooperative and implementation, and ultimately evaluate the results of alliance (Li et al., 2012). Hence, business environmental stability makes the alliances as monitoring mechanism entails of incentives to provide information, exchange resources and guarantee alliance performance (Kogut, 1988). Therefore, alliance partners should be willing to share resources, risks, costs in order to make partners illustrate their commitments for the agreement.

Consequently, many of difficulties can be caused by coordination costs of which combine human's assets within productive groups, whilst monitoring cost are likely related to the difficulties in terms of

supervising and controlling on establishing teams after the cooperation of the firms (Williamson, 1985). Therefore, strategic alliances can be considered a most important strategy in several cases through combining the markets and organisational hierarchy transaction characteristics. Hence, preparing contracts, and participating responsibilities are required in deciding to establish the strategic alliance, though, alliances activities mostly can be determined by relational characterises (Williamson, 1991).

Nonetheless, Yin and Shanley (2008) demonstrate that strategic alliances as a strategy should be separated from the organisational hierarchy. Indeed, alliances have advantages and disadvantage that unique and independent institutional logic from nature of markets and organisational hierarchy. Therefore, transaction cost theory has received criticism from scholars for several reasons. Globerman and Nielsen (2007) argue that transaction theory neglects both sides of developing aspects of alliances and the relational determinants in alliance nature. In addition, Jarillo (1989) clarify that establishing alliances among direct competitors will allow companies to reduce their cost comparing with transaction cost existed through the hierarchy.

## **2.5.2 Resources-based View Theory**

Traditional strategy research asserts that organisations need to seek a strategic fit among their internal characteristics (strengths and weaknesses) and their external capabilities (opportunities and threats). The resources based view theory has emerged from importance underlying resources presence within the organisation, which is defined as “any tangible or intangible entity available to the firm that enables it to produce efficiently and/or effectively a market offering that has value for some markets segment(s)” (Hunt and Morgan, 1995, p. 11). Firms’ have bundles of resources and competitive position of their own can be determined by their resource’s endowment. Due to the fact that markets are usually imperfect and incomplete of resources, firms, therefore, cannot cover their needed resources (Russo and Cesarani, 2017). In addition, these resources are sometimes classified as rare and unique, acquiring or buying these resources not easily, resources heterogeneity between competitors can continue over time, and illustrate performance diversity (Das and Teng, 2000). In order to achieve ideal integration, firms have variety of capabilities to obtain access to rivals’ resources, including (Morrow et al., 2007):

1. Helping them by developing capabilities by unilaterally or with other firms;
2. Attractive them through establishing acquisitions or mergers;
3. Obtaining access to them through creating alliances and partnerships.

Following the resources-based view that strategic alliances are considered as strategy designed to easily access firm’s allied resources, in order to acquire distinct resources which were unavailable and

garnering competitive advantage and values to the firms (Das and Teng, 2000). Strategic alliance is fundamental mechanisms to avert inefficient markets exchanges and gain the valuable resources (Lau et al., 2008). Alliances enhance the combination of complementary resources among firms and create new resources through synergetic interaction within the alliance (Wittmann et al., 2009). Additionally, these complementary resources must be integrated during the alliance lifecycle in order to develop joint outcome for alliances (Lau et al., 2008). The dynamics of the strategic alliances strategy focus on that resources-based view which can maintain the success of alliances by influencing significantly by 1) the resources which are contributed by partners to the alliance; 2) the ability of alliance to generate new resources (Das and Teng, 2000).

However, it is important that the resources owned by partners cannot consider essential for excellence alliance performance. The resources of partners might be overlapping (common to all partners) or nonoverlapping (rare to a given partners) (Das and Teng, 2000). Overlapping resources can be either effective for the Alliance (supplementary resources). High similarity of resources allows firms to obtain economies of scale and scope and achieving existent competitive advantage (Ireland et al., 2002). While, nonoverlapping resources are, according to dynamic of strategic alliances, firms should concentrate on the development their resources and capabilities, rather than depending on exploitation of other partners (Tece and Pisano, 1994). Furthermore, differences between complementary resources allow firms earning synergies, developing new resources, and ultimately accomplishing a new form of competitive advantage. Hence, the integration of the complementary resources is lead to developing of “idiosyncratic resources” (Ireland et al., 2002, Russo and Cesarani, 2017).

Furthermore, most of the resources are brought to alliances by partners, though some resources can be developed during engaging in the alliance. These “idiosyncratic” resources can be 1) improved during of the alliances lifecycle; 2) generated by integrating the perspective resources of partners, and 3) unique resources to the alliance (Jap, 1999). Ultimately, the resources-based view confirmed that combining partners resources (improve idiosyncratic resources) can create the synergistic effect which generates “more value in the integrated condition than the sum of separate values of resources with individual firms” (Das and Teng, 2000, p. 49).

This theory in terms of strategic alliances is subject to several of criticism. Traditional resource-based view theory indeed induces firms to set up protections surround their knowledge (explicit and tacit) to eliminate any imitation can be occurred by rivals. This theory emphasis on internal cooperated resources and capabilities, while it neglects to concentrate on profit which considers the property of the collaborated partners. Conversely, it is important that firms should concentrate on exchanging resources and sharing

knowledge within the boundaries of the alliance in order to maximise synergies resources with partners. In this vein, relational determinants in the alliance will achieve over time and will create a natural barrier to imitation from rivals (Gulati, 2007).

### **2.5.3 Game Theory**

Concerning the game theory as one of the theoretical strategies adopted by the players in a game, and then the outcome of the game will be affected by these strategies. This theory was represented by (Annatol Rapoport) which known popularly as “prisoners dilemma” to explain partner behaviour prediction. Game theory can be defined as using of rational decisions in conflict situations (Rapoport, 1974). The foundation of this theory is that developing the capabilities of decision maker, and, therefore, improving the outcomes of decisions (Rao and Reddy, 1995).

The game theory emphasises on player’s self-interest, which is focused on the dilemma might be existed. The dilemma is that, when the alliance will be established, then the joint interest will be maximised, it does not maximise self-interest for a particular transaction at particular moment in time. In terms of strategic alliances, mutual cooperation is the fundamental key success of their relationship. There is, therefore, a need to encourage cooperation, particularly through arranging that with same two firms which might be met together once again. This aspect more important, they can be able to recognise each other from the past, and recalling how other rivals have behaved until now. Axelrod and Keohane (1986) confirmed that three structural dimensions which serve both of cooperation perspective and the targets of higher-order strategies that promote collaboration including 1) pattern of payoffs, 2) the “shadow of the future”, 3) the number of players.

Following strategic scenarios and interdependency which are the central of game theory, game theory is considered potentially valuable when examining firms which are forming alliances, because it could be supposed that in any collaboration it is reasonable to assume that both actors are maximising their own benefit, and such as there is always the risks for opportunistic attitude can be appear from the other partner (Axelrod, 1984). According to Axelrod, (1997) asserts that the best strategy is to begin a good faith, and reaction to opportunism behaviour of others instantly. Within alliances setting should trust other parties which are in beginning in order to maximise the joint benefit, and always to be prepared to react to any sign opportunism behaviour can be occurred by others that would undermine the success of joint objectives.

#### **2.5.4 Knowledge Based View Theory**

Knowledge based theory is a broad approach, more recently debating regarding different aspects of knowledge creation, management and transfer. In respect of forming strategic alliances, the concept of knowledge moved by the aim of “learning”. Following to cooperative agreements, firms can enhance their knowledge base by revising the prior experiences (Kale and Singh, 2007). Learning become more important especially in alliances management and develops alliance know-how that would be used in future alliances. Knowledge has widely spread in the organisational environment and using it to provide new products and technologies which are considered the essential source of competitive advantage (Nonaka, 2008). According to Polanyi (2009) knowledge has two types; explicit and tacit. Though defining tacit knowledge is hard, but it refers to a kind of know-how without written guideline and transfer it very complicated. Tacit knowledge could either be seen as a main factor which can affect both strategy formulation and alliance creation (Culpan, 2002).

Strategic alliance as motivator for organisational learning and knowledge exchanging, it can treat the risk of leakage of knowledge that can happen to partners. In order to avoid these risks can happen; it is more important developing “relational capital” between partners; that will act as a safeguard against the opportunistic attitude (Jiang et al., 2016). Fulfilment relational capital theory, mutual trust and commitment should be formed as relational safeguard in order to reduce threat of negative behaviours of partners (Gulati, 1995b). The integration of two relational factors leads to achieve loyalty and cooperation between partners and provide a safety basis for creating communication among actors. The development of this relational theory that will positively effect on efficiency of alliances relational, and increase the scope of mutual knowledge learning (Kale and Singh, 2009, Gulati, 1995b). Therefore, high level of trust and commitment increase not only the mutual learning, but new skills and competencies can be developed. Ultimately, knowledge-based theory and social exchange theory (relational capital) will determine the level of development of social capital as being a key factor for alliances success.

#### **2.5.5 Dynamic Capability View Theory**

This theory has been widely used as determinant to illustrate the conditions that help to achieve alliance success (Teece and Pisano, 1994). Dynamic view can be considered an extension of the resources-based view, in fact, unpredictable markets condition and existed resources do not sufficiently justify the heterogeneity in firms’ performance (Saebi, 2011). In order to achieve competitive advantage, Porter (1985) asserts that firms can either gather similar resources in unified value chain or differ in activities when they establish alliance, therefore, competitive advantage or economies scale can be maximised.

Firms which operate within dynamic environment conditions should identify the best manner of renewing, reconfiguring, integrating and recreating their gathered resources. Hence, sources of competitive advantage eroded through environment changes, strategic alliance, therefore, has become the main key to improving market positioning, because imitating the alliances complicated and it is effective in fulfilling competitive advantage (Oburai and Baker, 1999).

Following to dynamic capability view theory which has a fundamental implication in strategic alliance literature, because it enhances shifts in research rational factor, particularly to partners' relationship. According to this assumption, alliance success relies not only on relationships among partners, but also related to the each firm's alliance management capabilities (Duysters and Lokshin, 2011). Furthermore, strategic alliances management capabilities are probably considered a kind of dynamic capabilities. These capabilities are heterogeneously distributed across firms which is useful should justify performance difference between firms. Therefore, successful of alliances would be obvious if firms develop the capabilities needed for managing that success (Russo and Cesarani, 2017, Lambe et al., 2002).

### **2.5.6 Strategic Theory**

Application strategy approach means developing dynamic models that allow for random variation as part of the explanation of how strategy is formed (Barnett and Burgelman, 1996). According to alliances perspective, many of the opportunities can be understood regarding how alliance develops over time. Firms are usually to integrate because they need the alliance process to continue in order to fulfil their long-term objectives. Following to relational behaviour which assumed that firms will expect the alliance benefits to be shared as condition for the alliance to exist (Deo Sharma, 1998).

Therefore, strategic theory as an approach can help the alliances to explain the process of creating alliances and how alliance develops through a need identified in a firm to full-blown collaboration among two partners or more.

### **2.5.7 Network Perspective**

The main assumptions of network perspective that explain the nature of interaction which is occur in the markets. Even so, the interaction between firms is becoming fundamentally important and the whole world is becoming increasingly "networked" (Culpan, 2002). The enlarging or scaling down the network which firm must observe the appropriate balance among the capabilities which helping to create innovation on the one hand and its capability to manage these innovations effectively on the other hand.

The concept of network approach is linked with the resources-based view, where both perspectives emphasise the role of resources. The network approach argues that firms are embedded within environment that deliberate strategies might often be impossible. Further, it is important that firm's management in this type of environment may better be described as "reacting" than "acting" (Håkansson and Snehota, 1989). Even so, the network approach extremely emphasises the role of networks, and is considered as such a valuable element of the deliberation regarding the role of strategy within an alliance context. Consistently, the position of the firm in the network that will be determined amount of information flows and resources. In addition, the centralisation of firm that will make more aware of the development in a network, and therefore it will gain the chance to access the crucial information (Robinson and Stuart, 2007). Hence, firms can be more capable of choosing best alliance partners. Therefore, the position of firm in alliance will effect on the knowledge creation ability and amount of resources transferred, as a result, has positive impact on introducing new products (Soh, 2003).

## **2.6 Strategic Alliance Management**

Strategic alliance management is a critical challenge for alliances in order to survive and fulfil common targets. Dyer et al. (2001) highlighted that through creation stage and in the management of the strategic alliance, firms can use the alliance as a fundamental source of competitive advantage. In order to achieve long term success of an alliance companies should manage their relationships actively. Draulans and Volberda (2003), p. 153-154) emphasised alliance management and the "capability to manage alliance successfully". Same researcher states that "although every alliance is unique, the processes of alliance management share certain features. The capacity to manage alliances and absorb knowledge on alliances is a distinct management capacity: the alliance capacity" (Draulans and Volberda 2003). Furthermore, Kale et al. (2002) defined alliance capability as mechanisms that are particularly designed to accumulate, store, coordinate and spread associate organisational knowledge about alliance management.

While Schreiner et al. (2009) assert that the main aspects in managing alliance include "coordination, communication and bonding". Coordination which concentrates on the creation of particular tasks and responsibilities for partners in order to prevent conflicts within the alliance relations. Also the ability to pool different resources together for fulfilment of alliances goals (Chen and Hennart, 2004). While communication focuses on the ability to transfer any necessary knowledge as soon as it is required. Whilst bonding concentrates on a psychological linkage which arises in the alliance when one partner where is about to receive essential value from its partner. Therefore, close relationships among partners should be developed, because social coordination enhance self-enforcing mechanisms in the alliance such as trust, communication and knowledge sharing (Kale and Singh, 2009, Gulati, 1995a).

A further important argument is that firms should assign the alliance supervision tasks to a particular manager. The coordination of key relationships within the alliance should be managed by the alliance manager (Jiang et al., 2010). The alliance manager can receive the support from alliance teams, which are responsible for particular problems involving cross-sectional assignment.

Alliance management capability can be considered a critical key on strategic alliance success since it has been known as a source of competitive advantage and it is therefore important for firms to improve alliance management capability which is particularly beneficial in the post-formation stage of the alliance (Schreiner et al., 2009). Moreover, the majority of firms invest great efforts in building and maintaining the success of alliance relationships. Most of these firms struggle with constructing effective strategic alliances because the relationships tend to be more complex. It is important that when firms seek to create alliance, the employees of these firms should share trust, commitment and mutual respect. The challenge can be faced within the alliance through those staff that consider the alliance more complex and different, building trust and commitment becomes more hard and delicate issue (Gonzalez, 2001). Therefore, the relationship needs to be continually monitored. Nevertheless, monitoring partners' behaviours can become a source of conflict in the alliance if it is considered as excessive (Jiang et al., 2016). Both of output and process controls are adopted as mechanisms in order to minimise opportunistic behaviour. Output mechanisms rely on alliance outcomes and concentrates on external results, such as sales and profitability of alliance (Celly and Frazier, 1996). While process controls focus on alliance behaviour and concentrate on the entire conduct of the partners into the alliance (Aulakh et al., 1996). As a result, both mechanisms have been proved empirically by (Nakos and Brouthers, 2008) who confirmed that process controls develop collaboration in integration with commitment, whereas output controls decrease cooperation and enhance opportunistic behaviour. Therefore, trust can be viewed in alliance as a fundamental element for more formal control mechanisms where it takes a strong stance during the alliance life-cycle (Li et al., 2008a, Mellat-Parast and Digman, 2008).

## **2.7 Strategic Alliance Life-Cycle**

Strategic alliances are often created in response to competitive conditions and environmental challenges, they are existed as relationships that are dynamic on their own and subject to the challenging of external changes bearing not only directly upon the alliance but also on the partners separately. Alliances should transform and adapt with this direction. The majority of alliances, however, the one choice appears to be to developing or to fail (Elmuti et al., 2012).



In order to absorb these challenging, partners should continuously be ready to reformulate their relations and be clear when negotiating with their relatives. Also, partners should be redefining their tasks, responsibilities and strategies according to the alliance's outcomes and environmental situations (Lorange, 1996). According to (Rutledge, 2011, Vaidya, 2011, Chung et al., 2006, Gulati et al., 2012, Das and Teng, 2001, Kale et al., 2001, Argyres and Mayer, 2007) strategic alliance lifecycle is divided into five substantial stages that consist shared behaviours and factors which are important in formatting strong alliance. The following key stages can be specified in the strategic alliance lifecycle, despite a few differences shown between researchers:

### **2.7.1 Stage one: decision making in cooperation**

The importance of pre-alliance formation has underlined by several researchers. The pre-alliance formation analysis is the main point when considering strategic alliance as a motivator for achieving excellent performance (Vaidya, 2011). Conducting internal analysis for the strengths and weaknesses integrated with external analysis of threats and opportunities will provide the firms with indication regarding the strategies and options which will be available to them in their specific cases (Chung et al., 2006).

### **2.7.2 Stage two: partner selection**

According to (Elmuti et al., 2012, Gulati et al., 2012) both identify the fundamental aspects of partner selection which found in the antecedent of the strategic alliance. They refer to that a firm should look at three dimensions when assessing potential partners:

**1- Partners fit:** this concept asserts on finding partners who have common motives for establishing an alliance and compatible directions in terms of the strategic vision of such alliance. Partners are having a similar approach to the alliance formation can be considered as a prerequisite for alliance success in the design and development stages. All the motives are of course negotiable, but the main point of each firm should have similar common intentions for establishing a strategic alliance in terms of duration (Bronder and Pritzl, 1992).

**2- Strategic fit:** this concept refers to the harmony of partners when it can be found in terms of business plans and planning horizons. This concept can be identified through long-term goals of the potential partner and which main areas of a business to the firms focusing on? It is fundamental to evaluate whether there is a complementary fit among the strategies applied within the firms because this will influence the

synergistic of the alliance and likely mitigate some the challenges inherent in the further development stages (Inkpen and Tsang, 2005, Elmuti et al., 2012).

**3- *Mutual fit or cultural fit*:** this concept is diffuse but nonetheless important to the strategic alliances. Mergers and acquisitions as strategies often face failures through increased culture clashes, where the absorbing variety of values, beliefs, tools of communicating etc., which will obstacle the realisation of synergistic value (Maurer, 2001).

In terms of strategic alliances, the pressure of time to aligning differences in culture would be less than other strategies Also; the literature of strategic alliances does not propose selecting partners within the similar culture. Rather they should be focused on the similarities, and make sure that the alliance is formed as a joint philosophy “view of the world” among the partners (Hoffmann and Schlosser, 2001, Gulati et al., 2012).

### **2.7.3 Stage three: Designing the strategic alliance**

This stage is concerned with start point or set-up of the strategic alliance which frequently contains aspects of both formal and informal arrangements. Formal aspects include such as written contracts which are considered the starting point of firms deciding to work together. The contractual agreements specify how by who and where the tasks which are agreed upon to be conducted and hereby agreements of the boundaries of the alliance are drawn up (Argyres and Mayer, 2007).

### **2.7.4 Stage four: Development of the Strategic Alliance**

According to Dyer et al., (2001), Das and Teng, (2001) assert that putting the efforts, resources and time into the design stage of the alliance is not the main thing, the actual experience when applying cooperation into work and investigating the risks and benefits which can be really appeared, it is the management of the alliance over time that is more important. Furthermore, Gulati et al. (2012) developed the principle of “post-formation dynamics” of alliances. Following from this principle is that the strengths of an alliance and the potential benefits cannot be fully determined up front but will be apparent in the implementation of alliance.

In terms of this principle, partners learn about their peers and also the tasks which are performed. At the beginning, partners do not have completely suppositions about their partners, resources, capabilities, structural and cultural idiosyncrasies, and the integration requirements of the joint tasks, but during

implementation and development of the strategic alliance, partners will experience the actual behaviour of each other (Reuer and Ariño, 2007).

### 2.7.5 Stage five: Termination of the Strategic Alliance

Dissolving the alliance can happen at some point, because of unfair actions by one or more partners, because the alliance strategy is no longer required in order to overcome pre-identified challenges or due to a full merger more than two firms.

Not important the reasons of termination decisions, it might be beneficial to set up the agreement of termination already in the design stage of the alliance. Therefore, the level of risks of losing reputation will be limited and can help to determine rules of mutual dependence when agreements put for exit are agreed upon earlier (Cui et al., 2011). Following Figure 2-4 illustrates the stages of strategic alliance life cycle.

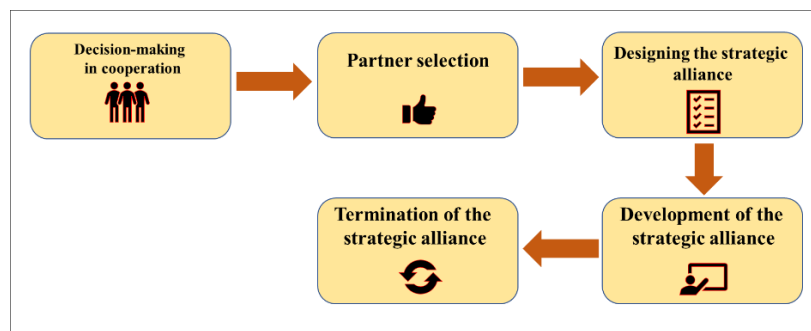


Figure 2-4 Strategic Alliance Life-Cycle Model

## 2.8 Strategic Alliance Performance Indicators

Several of researchers' efforts (Gulati and Singh, 1998, Larimo et al., 2016) argued that it is a necessity of conducting a persistent evaluation for strategic alliance performance which considers the primary component for delivering alliance successfully. Importantly, the aim of creating strategic alliances are not always to fulfil conventional goals such as profits and improving market sharing, but there are a number of qualitative goals required such as developing organisational knowledge sharing and demolishing the competition (Lunnan and Haugland, 2008). Nevertheless, a set of definitions for the performance norms are provided in detailed in order to comprehend the criteria of measuring strategic alliance performance.

With regard to determine measurements of strategic alliance performance. Two key studies are made by (Geringer and Hebert, 1989, Lecraw, 1983) in their studies, they identified financial measures as the main performance indicators, such as profitability, markets share growth and cost reductions. Financial

measures depend on cost information, financial data, sales information and sales growth which consider short-term measures in nature. Financial measures, however, take no account of as a strategic component and in competitive elements in the alliance, which have no direct quantitative influence. It suitable for past performance but cannot predict for long-term objectives such as value creation and reputation. Additionally, financial measures are associated with the parent company's outcomes and could fail to consider the performance of the alliance itself (Lunnan and Haugland, 2008). Thus, many companies are dissenting to share sensitive financial data with researchers (Chen and Tseng, 2005).

Non-financial measures consider more related to strategic goals (Zou et al., 1998). Managers usually use these norms to capture a variety of alliance performance aspects. These measures consist of management related, strategy-related and product-related (Larimo et al., 2016). This type of norms more accurate for assessing performance because of the financial ones unable to prepare proper feedback regarding the organisational competitiveness. In addition, non-financial measures are more appropriate for determining capabilities planning for strategy implementation future, which consider actionable and future-oriented (Spencer et al., 2009).

To deepen the knowledge regarding evaluating alliances performance through objective measures, alliance instability (Gomes-Casseres, 1989), alliance duration (Harrigan, 1986), and alliance survival rates (Geringer, 1990). In contrast, this type of measures has considerable research drawbacks. According to (George and Farris, 1999) in this type of measures, it is difficult to compare the alliance within different stages in their life-cycle as well as in different industries. Further, objective performance should be measured in both loops at a firm-level and at an alliance-level. Also, measuring strategic objective performance required to be at both company-level specifically and at an alliance-level generally. the success of the alliance can be fulfilled in the long-term and achieve its goals. Thereby, one partner cannot achieve alliance benefits as transferring knowledge and market access through a one-way strategy (Emden et al., 2005). The findings of (Christoffersen, 2013) shows that Subjective measures helpful where are aggregated through obtaining assessments from alliance partners or alliance managers. Ariño (2003) asserts that these measures can be divide into total overall satisfaction between partners, the amount of achievement of partners objectives. Some measures contain number of elements and can being combination of elements from both categories, where satisfaction not only the measure, but might be reflected to variety of specific items such as sales, technology development, market share, reputation and customer service. The Stability measures: is relevant on decisions taken via alliance partners based on reports of alliance performing. The nature of this measures is not just assessing the managers action as implicit in subjective measures, but might encompass goals of alliancing companies (Christoffersen,

2013). Whereas Accounting measures concentrates on measuring financial data which is aggregated by computing the growth percentage and financial ratio in order to gauge alliance performance through a financial domain (Pearce II and Hatfield, 2002). Regarding the fact of the cumulative abnormal return which is representing an assessment of partners' strategy choices which is related to the hypothesis rather than showing the actuality of alliance performance. The external evaluation which is used to evaluating non-profit alliance objectives, where uses the ranking to assess important achievement within various alliances (Li et al., 2008b).

On the other hand, Lavie (2007) tried to prove different type of performance measures which provide another technique to obtain fundamental results. This technique is the focal firm's market performance, which is defined the annual change within market value of the firm's common share as a measure of alliances success. This technique can be operated through multiplying the dependent variable the number of common shares outstanding by firm's stock price. However, the focal firm's market value considers a very fluctuate performance measure. Tackling this fluctuating issue, Lavie (2007) asserts that firms should to account the averages the end-of-month daily values of the relevant year. In conclusion, he argues that alliance performance account through these measures will put certain limitation, such as it will discount's intangible assets, it will intervene and confound the level of alliance factors, then decrease alliance success rate.

The identification of proper indicators to measure SA performance is needed, and several researchers as mentioned previously, have sought to determine what the most appropriate norms for alliance performance are. It is widely believed that SA performance should be measured through different norms, whilst prior studies have resulted in conflicting findings regarding indicators and ignored relationships between influencing factors and the selection of a variety of performance measurements. Furthermore, previous studies have not concentrated on the mechanisms adopted by alliancing companies, in terms of selecting performance measurements at the different stages of a strategic alliance lifecycle.

Ultimately, the selection of measurements for strategic alliance performance relies on a company's objectives and whether the follow-up of alliance performance fits with the planned targets. Furthermore, it is very difficult to apply only the financial or subjective indicators, to accurately determine a SA's performance and achievement. As the measuring of performance should be based on the understanding of an organisation's principles, which ought to be undertaken by highlighting all of the organisation's aspects, including its economic, behavioural, organisational and business environment. With this method for measuring SA performance ensuring that all targeted objectives can be achieved. The next section

discusses the behavioural success and negative factors, that influence strategic alliance performance as identified through an extensive literature review.

## **2.9 Identifying of the Behavioural Factors Impacting Strategic Railway Alliances Performance**

There is no doubt that several scholars have been contributed to developing frameworks regarding some of the behavioural factors are affecting strategic alliances success. Some of these frameworks were built based on relevant previous studies, and some were developed and evaluated for the first time. Applying and discussing the behavioural factors as BSFs and BNFs reflect the importance of these factors and their impact on the success of SAs relationships and delivering projects successfully (Kauser and Shaw, 2004, Jefferies, 2006). Also, through reviewing the literature review that it is clearly identified that authors distinguished these factors and categorised them separately (See Table 2-3). Analysing the connection between behavioural success and negative factors relies on several points, firstly, the nature of both behavioural factors stems from the same direction, where the negative factors represent the negative aspect for the success factors. Secondly, both aspects of these behavioural factors are related to how partners behave during the creation of alliance relationships, whether the behaviours are positive or negative. Thirdly, the value of both behavioural factors can determine the amount of connection between them, where behavioural success factors indicate that the values have changed in the same direction; with high behavioural values in one factor associated with high values. Whereas, behavioural negative factors imply that the values have changed in the opposite direction to the success factors, where high values in one factor are associated with low values in the other. Additionally, the relationship of both behavioural factors is strong, when the target is either to enhance or inhibit coordination between partner behaviour towards the delivery of particular projects. The ability to determine which suitable strategy should be followed to gather and empower human behaviour to implement a project successfully and prevent the occurrence of any potential negative behaviour is crucial to the successful implementation of a project (Russo and Cesarani, 2017). Table 2-3 shows the categorisation of previous frameworks and studies according to a variety of behavioural factors impact strategic alliances and partnering. Thus, the rest of this section discusses the triangulation of primary data and secondary data regarding the behavioural factors that are emerged from the literature review and primary data collection.

**Table 2-3 Categorisation of Previous Frameworks for Behavioural Factors that impact Strategic Alliances Success**

Behavioural Factors Source	Trust	Commitment	Knowledge Sharing	Mutual communication	Mutual dependency	Partners' interaction	Opportunistic behaviour	Distrust	Leadership	Understanding alliance objectives	Power	Aligned partners' Objectives	Aligned partners' Vision	Teamwork	Conflict	Lack of Communication
(Parkhe, 1993)						✓										
(Mohr and Spekman, 1994)	✓	✓			✓											
(Ring and Van de Ven, 1992)	✓															
(Aulakh et al., 1996)	✓															
(Monczka et al., 1998)	✓	✓			✓											
(Morgan and Hunt, 1994)	✓	✓		✓			✓									✓
(Gundlach et al., 1995)		✓					✓									
(Sarkar et al., 2001)	✓	✓														✓
(Kaiser and Shaw, 2004)	✓	✓		✓	✓											✓
(Robson et al., 2006)	✓	✓		✓												
(Nielsen, 2007)	✓															
(Holmberg and Cummings, 2009)	✓	✓		✓												
(Gomes et al., 2013)				✓					✓							
(Chen et al., 2011)	✓	✓														
(Katsikeas et al., 2009)	✓				✓		✓									
(Doloi, 2009)	✓			✓												
(Black et al., 2000)	✓	✓		✓						✓						
(Chan et al., 2004)	✓	✓		✓					✓							
(Cheng and Li, 2002)	✓	✓		✓												
(Casey, 2008)	✓			✓		✓			✓		✓					
(Chin et al., 2008)	✓	✓	✓						✓							
(Rikkiev et al., 2012)	✓	✓		✓						✓	✓					
(Love et al., 2010)	✓		✓	✓								✓				
(Lönngren et al., 2010)	✓															
(Cheng et al., 2000)	✓	✓		✓					✓							
(Rai et al., 1996)	✓								✓	✓		✓				
(Xu et al., 2005)	✓									✓						
(Walker and Hampson, 2008)			✓													
(Jefferies et al., 2014)												✓				
(Beach et al., 2005)	✓	✓	✓	✓								✓	✓	✓		
(Cheng and Li, 2001)	✓	✓		✓										✓		
(Tavallaei et al., 2015)	✓					✓							✓		✓	
(Briscoe et al., 2004)			✓	✓												
(Franco, 2011)	✓	✓		✓							✓	✓				
(Akner and Yitmen, 2011)	✓	✓	✓	✓								✓				
(Taylor, 2005)	✓		✓	✓							✓	✓				
(Ab Talib et al., 2015)	✓	✓		✓		✓										
(Kumar et al., 2015)	✓	✓														
(Yeung et al., 2007)	✓	✓		✓								✓				
(Jefferies, 2006)	✓													✓		
(Meng, 2012)	✓			✓		✓						✓				
(Thomas and Thomas, 2005)	✓			✓				✓				✓				✓
(Chen et al., 2012)	✓	✓	✓	✓								✓		✓		
(Christoffersen, 2013)		✓													✓	
	✓															

(Dania et al., 2018)	✓	✓	✓	✓	✓						✓	✓	✓			
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It is clear that from the literature (empirical studies) provided in the literature review that there is a need for identifying intensively the BSFs and BNFs of strategic railway alliances. BSFs minimise the risk of failure in the strategic alliance if it is identified and adopted successfully and worked upon from the beginning of the alliance project. The identification of these factors is considered crucial for managing relationships and behaviours for partners during strategic alliance implementation, where they will incorporate these behaviours within their dealing and activities to increase the opportunity of performance success. In contrast, the appearance of the BNFs able to maximise the chance of failure of strategic alliance, if partners insist on behaving negatively to feed-up their self-interest and being dealing with others via traditional ways. These signs can be reflected negatively on the performance of the alliance. Further, selection of behavioural factors in demonstrated table above have not been conducted based on ranking but factors were chosen because all considered important and have an impact on the performance and destiny of relationships inside the strategic alliances, also most of these factors represent the negative side for the BSFs which consider crucial. The next sections show the behavioural success factors and behavioural negative factors for strategic alliances identified by intensive reviewing for literature review.

## **2.10 Behavioural Success Factors Impacting the Performance of Strategic Railway Alliances**

This section focusses on demonstrating the main BSFs that can enhance the performance of SRAs. The following factors are adopted after critically reviewing the literature review, then primary data collection. (trust, commitment, knowledge sharing, partners' interaction, mutual communication, mutual dependency, leadership, understanding alliances objectives, aligned partners' objectives, aligned partners' visions, and teamwork) are the main factors obtained from the literature (secondary data), whilst (open to challenge, training, constructive conflict, behavioural accommodation, non-coercive power) are the main factors gained from interview sessions (primary data).

### **2.10.1 Trust**

The concept of trust differed with individual belief or groups belief of individual, in which this belief is embedded within the habits and culture of individuals, groups, industries, national stage and on international stage, thus, trust has been conceptualised as willingness one party to exchange confidence with other partners in the reliability and integrity (De Ruyter et al., 2001, Kumar et al., 1994, Morgan and Hunt, 1994). In other words, trust in an alliances context defined as an individual's belief or a common belief among a group of individuals about another individual or group (Yasir Yasin and Maqsood Ahmad, 2013). From a strategic alliance perspective, the transaction view proposed that the presence of trust is

considered as a vital factor in the relational governance structure of the partnership because of coordination and mutual dependency problems, in which this suggestion implies that trust has the ability to lowering transaction cost via preventing opportunistic behaviour thus helping partners extend their view in order to take a long-term perspective to the relationship (Kauser and Shaw, 2004). Ultimately, Kale and Singh (2009) stated that particularly in long-term strategic alliances managers should fall back on trust and commitment, because these concepts represent the social fabric of the partnership, in order to fill the gaps within the formal agreement and to make the relationship run smoothly. In the same scenario, the partners usually engage to gather in the cooperative effort on a basis of reciprocal trust, where this is the best way to realise benefits and to lowering welfare loss (Lee et al., 2010). According to (Argyres et al., 2007, Inkpen and Currall, 2004, Robson et al., 2008) refers that there is considerable encouragement between inter-organisational exchange researchers and practitioners that trust is essential to enduring relationship, productive relational exchanges. Therefore, Zaheer et al. (1998) explained that at the inter-organisational level, trust could lead to remarkable performance through reducing negotiation costs, opportunistic behaviours and conflicts or by allowing deferent governance mechanisms. In addition, communication, shared understanding and better cooperation are permitted by trust. Thereby, Lin and Wang (2008) proposed that alliances success is achieved by committing the resources necessary through trusting relationship.

Furthermore, trust is viewed as a fundamental instrument of competitive advantage because it reduces transaction costs, facilitates investments in cooperative assets, then leads to better information-sharing routine (McEvily and Zaheer, 2005) . In other word Madhok (2006, p. 9) argued that trust “providing another means to the same end as financial equity”, that is, flexibility and efficiency in managing a relationship. Thus, in Svejenova et al. (2005) the framework refers that trust is appeared to offer another source of fulfilment alongside ownership and legal achievement, in which partners within alliance can use to enduring collaborative and keeping action stay consistent with expectations. In the same trend McEvily et al. (2003) contend that the structure of relational connections is improved by trust via strengthening the density and thickness of relationships among the partners. Essentially, conduits of coordination are created by structuring through engaging actors, meaning that a density of social network of interconnected actors facilitates performance success by providing personnel with complete access to keys of other actors. Following this argument Lin and Wang (2008) defined trust as a willingness to depend on partner in whom one has confidence, which trust is thus as a key factor in determining long-term alliance orientation with its achievement role that lower the likelihood of other party will act opportunistically. Thus, when inter-organisational relationship established among firms, mean that they escape from the risk of

interactive with incompetent partners, potential opportunism through the exchange partners, then loss of specific assets (Gaur et al., 2011).

On the other hand, Chang et al. (2011) emphasised explaining trust from a behavioural view that to collaborate well team members of alliances do not need to be best friends but they need to be more trust, confident, and more respect of each other's competency, giving alliance members the opportunity to match will help them, understand each other's viewpoint, ideas, and expertise where the trust between members of alliance will be evolved. Importantly Jiang et al. (2015) argue that if the focal firm has a high level of trust in partner's goodwill or competence, mean that the partners have a positive position towards the alliance to fulfil the alliance targets and possesses sufficient competence, this implies that places the more trust focal firm in partner, the more likely the firm will act in a trustworthy pathway. In turn, the partners will assess activities of focal firm and reacts in the same way. Moreover, in respect to inter-organisational relations literature, Song et al. (2009) add another definition of trust as confidence among partners through exchanging reliability and integrity directly and indirectly through out commitment that affects exchange outcomes. So that, building trust should be through sharing flexibility co-alignment between all supply chain partners jointly via exchanging the responsibility in order to achieving management flexibility and physical distribution (Archer et al., 2006). It is expected that when behavioural uncertainty is created by supply chain partners, it will decrease level of trust since it creates a problem within performance evaluation (Kwon and Suh, 2004).

In respect of relationship between trust and alliance performance, where many theorists noted that trust working as a trigger of various structuring, organising, and mobilising mechanisms for enable an alliance to fulfil extreme performance outcome (Robson et al., 2008). As a result, Chang et al. (2011) proposed that the main factor making the actual firm successful is trust, when virtual interaction and interpersonal processes are possibly exist, mean that outcome will be great. However, disrupting the flow of information between partners that mean an absence of trust which can lead to conflicts and coordination problems.

Furthermore, Beccerra and Gupta (1999) stated that high trust within the partnership would enjoy, sharing communication and willingness to take risks. The outcome of trust, therefore, when a firm believe that partners will perform actions that mean the outcome will be positive, also, they indicated that overall performance could be improved if the risks of distrust were decreased (Song et al., 2009). So that, the complications inherent in strategic alliances will disappear by trust because it strengthens the connections among social network actors, which enables developing information exchanging and coordination (Robson et al., 2008). In respect of connections and coordination, Crowston (1997) argued that sharing

this activities could be able to enhance alliance performance through improvement of transaction value, thereby, when the transaction costs is reduced, theorists realise that flowing of resources and information will be easiest between partners whom are participated in the day to day of exchange. Therefore, high trust enhances partners performance through activating certain structuring and mobilising mechanisms that will improve the social properties of the networks of alliance actors performing, in which these structuring refer to the relationships (connections) among the parties, and explains the interaction models involved in carrying out the exchange (Katsikeas et al., 2009).

Regarding the suggestions of Mayer (1999) and Mohr and Puck (2005) trust has been conceptualised as the reflection between joint venture partner's integrity, benevolence and competence, mean that trust play a main role regarding conditions assets exchanging among partners, when the assets are transferred within joint venture, the high specificity will be exhibited, also, it can mitigate the risks and opportunism behaviours (Dyer and Chu, 2003, Hödl and Puck, 2013). Hödl and Puck (2013) contend that trust could play equally role as a cost-reducing factor through positively effecting the relationship among assets specificity and joint venture performance, because trust works to lower governance costs and relational risks in order to developing joint venture performance related with asset specificity (Zaheer et al., 1998), and facilitating long-term relationship investment, which representing as a guarantees the quality of a partnership through allowing a free sharing of worth information (Yasir Yasin and Maqsood Ahmad, 2013). For instance, Katsikeas et al. (2009) discovered in their study about international sharing relations that trust most important for alliance performance when interdependence among partners was high. Thus, trust has become as effective governance safeguard (Li et al., 2008a). So, the assumption of partners trust Kalafatis et al. (2013) asserts that when alliance partners trust others, the others should perceived to (1) commitment to agreements (integrity); (2) the partners should be interested in achieving their targets (benevolence); resources and competences required to success partnership must be possessed to do so (competence). In high-performance SA, trust among partners is shown to endure over the different difficulties associated with organisational complexity, supporting productivity via reducing transaction costs and increasing transaction value (McEvily and Zaheer, 2005).

Particularly, though the difficulties associated to trust a partner when one is sure about its ability to achieve the required duties, otherwise, whether the competence and resources are possessed by partners to contribute in alliance success, as a results, competence consider as an essential element in establishment of alliance's trust (Kalafatis et al., 2013). Finally, the monetary and nonmonetary on investment have been identified in the relationship within strategic and marketing literature that trust and commitment frequently

have been recognised as fundamental relationship building blocks, both elements have been successfully utilised as indicators of relational continuity (De Ruyter et al., 2001).

### **2.10.2 Commitment**

Globalisation, liberalisation and integration of business world have been grown and they have been become responsible for inducement an extent number of firms to engage in business activities (Czinkota and Ronkainen, 2013). The soul of these activities depends on the formation, development and maintenance of organisational relationships, so these activities have the ability to build solid working relationships which can enhance benefits for partners (opportunities, source of innovative, cost reduction, access to technical expertise). In contrast, to gain these benefits and opportunities, it is important to have trustworthy partners who tend to work hard and illustrate commitment to the partnership (Leonidou et al., 2008). Commitment is as main element construct in the paradigm of strategic alliance. Many of researchers have provided definitions of commitment where Bianchi and Saleh (2010) defined commitment as an reciprocal partner's beliefs that help to ongoing the relationship with another which is so important that it warrants maximum efforts to sustain it. Also, commitment is generally defined as an implied promise of relational continuity among exchange partners (Kausser and Shaw, 2004).

Thus, if the partners do not sustain pledges and try to act opportunistically, so the value of its commitment will be lost with other firms (Li et al., 2013). However, sharing resources, risks and costs that refer to a partner commitment, this mean the motivation for firms to make a commitment is the partners promises of sharing potential outcomes (Lui et al., 2008, Li et al., 2013). Regarding the relationship between trust and commitment. Several of scholars points out to relationship which are considered fundamental factors of success strategic alliance. Pesämaa and Hair Jr (2008) The relationship among partners always faces risk. To decrease these risks, firms within successful alliance working to share resources, cost and operations with others they can trust. Interpersonal commitment generally is following trust. Thereby, interpersonal commitment eventually affects inter-organisational commitment. Moreover, inter-organisational commitments enhance based on engaging of trust reciprocity between partners but are eventually developed through interpersonal commitment. Interpersonal commitment, as a result, will possibly mediate the influences of trust and reciprocity (Pesämaa and Hair Jr, 2008).

In the same trend, trust and commitment are essential for strategic alliance learning and often refer to as among the main benefits and motivation for strategic alliances (Yasir Yasin and Maqsood Ahmad, 2013). Furthermore, Chen et al. (2011) proposed explanation about integration within supply chain that that attempts to decrease operational costs and enhance partners value through sharing information among

partners. This mean shared information, trust and commitment between partners have become important factors for partnership and supply chain integration performance and successful integration achievement. Importantly, trust and commitment bind the partners to a relationship and aid easy take high uncertainty, complexity and contractual rigidities all of which influence long-term success (Bianchi and Saleh, 2010).

According to the importance of commitment in establishing long-term relationships. Pesämaa and Hair Jr (2008) Identified that inter-organisational commitment is essential for partnership because it illustrates how success and strength can be accomplished via integration the resources of several firms have engaged within same destination level. For an enduring relationship to evolve, commitment and joint action of the engaged partners is required to encourage the recurring reciprocity. Commitment, therefore, is a significant variable for long-term success, because partners' alliance is willing to invest valuable resources, sacrifice short-term advantages for long-term success. Further, firms are building and sustain long-term relationship if they discern reciprocally beneficial gains result from such a commitment (Chen et al., 2011). Eventually, Vlosky and Wilson (1997) suggests that commitment as an element that discriminates among relationships that persist and those that collapsed. So that, the enduring business transaction relationship between partners in strategic alliance requires commitment in order to accomplish their common alliance targets. Thereby, commitment is a key for continuing relationship and fulfilment desired outcomes for firms allied, and it has positive impact on performance (Chen et al., 2011). In same way, Pesämaa and Hair Jr (2008) states that inter-organisational commitment as strategic goal followed by alliance partners. Commitment has three main elements: continuance, behavioural and affective commitment. Continuance commitment is defined as partner's desire to persist relationship with others (Skarmeas et al., 2002). Behavioural commitment refers to the extent to which partner support special help to its partner in time of need. Finally, affective commitment reflects of the sense of oneness that binds partners together (Bianchi and Saleh, 2010).

On the other hand, commitment points out to the motivation to enduring valued relationship throughout sharing knowledge within parties allied. Sharing knowledge helps to increase internal activities, which lead to growth of commitment among partners (Karlsen et al., 2003). Moreover, it has been observed that the knowledge obtained through the experience of business activities in specific fields, this mean increasing commitment to other partners in different area or field, which represent as instrument for commitment (Bianchi and Saleh, 2010). Knowledge competencies are intangible capabilities that are responsible for creating competitive advantage for allied firms. This suggestion means that sharing resources and knowledge capabilities possibly can facilitate trusted and committed ties among exchange partners (Bianchi and Saleh, 2010).

### 2.10.3 Knowledge Sharing

The importance of knowledge sharing has increased the recognition that competitive advantage can no longer be merely attribute to internal idiosyncrasies, but also lies on resources and capabilities that are gained from external partners (Mathews, 2003). In this respect, sharing and absorbing knowledge can successfully be occurred by accumulating a range of performance benefits through sharing knowledge across partnership boundaries, including decreased failure rates and increased productivity (Squire et al., 2009). In turn, transaction value will grow because mobilised partners willingly share sensitive and proprietary knowledge necessary to cooperate and improve their work flow (Katsikeas et al., 2009, McEvily et al., 2003). Inkpen (2000) identifies that the generation of new knowledge is a huge challenge for a firm. So, it's worth doing because sharing knowledge assures organisational actions and sharing new knowledge will provide for organisational renewal (experimentation, change and innovation, competitive edge) (Lo et al., 2016). According to the theoretical perspectives on strategic alliances, Inkpen and Tsang (2005) state that learning and knowledge can be obtained by partners engaged within alliance through their past experiences and their tacit knowledge and experiences back to the parent firm. In this sense, trust is considered fundamental instrument if alliances actors are likely to be willing to sharing knowledge on strategic and operational level, partners will share knowledge with confidence because of the developing of trust (Nielsen and Nielsen, 2009). If the trust and commitment among the partners are lost, sharing skills and knowledge of technology are commonly inhibited (Yasir Yasin and Maqsood Ahmad, 2013).

Regarding the perspectives on strategic alliances, the first is knowledge-based theory that about firms as the depository's explicit, tacit knowledge and competencies, which are seen as the much more strategically significant firm resources. Lo et al. (2016) Proposed that Possession of discrete knowledge resources, which are emerged by their value, difficulty to imitate and rareness between partners, as well as organisational capability to create, share, replicate and utilise them to convert them into products or services are considered as main elements of firms' strategy and the essential source of their growth, evolvement and success. The suggestion of knowledge-based view that organisational abilities depict the result of combination of multiple knowledge bases, accumulation and integration of which can develop alliance performance, helping to establish and maintain competitive advantage and ensure an alliance long-term survival (Khamseh and Jolly, 2006a). These knowledge abilities can be gained via internal and external sources and internalised for establishing company skills and creating competitive edge (Nielsen, 2005, Lo et al., 2016).

Thus, Holt et al. (2000) refer to that strategic alliances facilitate sharing knowledge, this mean the entire of sharing knowledge depends on learning mechanism and trust, in which without trust, advantage

to the alliance will be minimised. So, the requirement for alliance is to extract knowledge and skills from other partners in order to alliance survival. Therefore, trusting partners within alliance not only openly reveal critical knowledge, but also are confident in the relevance and accuracy of knowledge obtained. Through sharing high-quality knowledge, partners work much more productively, solving technical problem, and improve transaction value (Katsikeas et al., 2009).

In the current highly competitive marketplace, the new capabilities and knowledge of firms need to be developed in order to outperform their competitors, obtain market share and survive (Ireland et al., 2002, Hamel, 1991). Though, Badir and O' Connor, (2015), Doz, (1996) concluded that knowledge is considered as a vital to competitive success because sustainable competitive advantage is often developed through strategic vision of firms allied by sharing knowledge. In this respect, strategic alliance has become an effective means of learning, skills and obtaining new knowledge, and of reaching the ends that firms cannot fitful alone, or at least as immediately. It follows, Ulrich et al. (1993) supposes that learning skills cannot happen unless knowledge is shared across the alliance boundaries. Through cooperating with other partners, firms can learn or sustain abilities, which are essential for assuring competitive success, and improved productivity and innovation (Badir and O' Connor, 2015, Dyer and Singh, 1998). So that, the conformation of this idea has been proved by Inkpen, (2000) that alliances provide partners unique opportunities to gain learning and skills and leverage partners' knowledge bases that contrast with from their own, therefore, have the possible abilities to create development and innovation (Lo et al., 2016).

On the other hand, beside strengthen competitive advantage, sharing knowledge also help to enhance interaction, thereby trust and commitment can be built between partners into strategic alliance. It clears that when firms are able to share knowledge, exchange information and doing the communication well, the interaction among the partners will be sufficient and then will be more easier to utilise these activities as a means of building trust, the most probably scenario is one of give and take, in which trust can be built by mutual learning, anticipating knowledge and supposing to receive the same content. In other word, the benefits are symmetrical (Badir and O' Connor, 2015). In same vein Inkpen and Tsang (2005) summarised that the intensity and breadth of interaction between partners are increased through exchanging variety types of information relating firms activities, which can develop general knowledge available to both partners and the effectiveness of obtaining of more tacit elements of knowledge. Thereby, new knowledge-related abilities can possibly be established. Establishing knowledge-related capabilities, relationship specific assets, knowledge-sharing processes and efficient governance structure, firms allied can leverage the generated aspect of social capital embedded in partnership for improving its own knowledge base and building trust, commitment, and then competitive edge. Long-term success can be



achieved through utilising social capital as it being essential and determines the effectiveness of knowledge exploitation (Lo et al., 2016).

However, weak relationship is characterised by uncommon and distant ties and are less probably to encourage exchanging and trust. In contrast, maintaining strong relationships are more costly and require more time and efforts than weak relationships (Badir and O' Connor, 2015). As a result, strong relationships increase the likelihood that partners of strategic alliance will share sensitive knowledge with others. In the absence of strong relationships, partners might not improve the necessary social ties that will be allowed sharing knowledge to be willingly (Inkpen and Tsang, 2005).

#### **2.10.4 Mutual Communication**

Through the past decades, strategic alliances have supported firms to fulfil competitive advantages in the world business environment. Some of these advantages include: the expansion of the firm's markets, using a unique resources (new technology), improvement of new products and services, and development of operational effectiveness (Costa e Silva et al., 2012). In order to achieve a successful strategic alliance operation, the partners are required to realise, share, exchange, and obtaining learning and skills between each other. So, to achieve alliance targets that communication should be effectively sufficient to manage pooled resources (Youngtae et al., 2010). Therefore, communication quality can be defined that the level to which the content of communication is received and understood by the other partner in the alliance (Sengupta et al., 2000). The process of communication, it allows partners who share the information to improve a relatively informal method, the quality of information transferred and joint participation by parties in planning and objective setting transmit very important signals to the trading partners, this mean in virtual teams, alliance success depend on effective communication and sharing knowledge between partners (Sengupta et al., 2000).

In terms of communication which has been realised as factor to facilitating and compelling that can be effectively used to strengthen the relationship of partners (Mohr and Spekman, 1994). Also, Costa e Silva et al. (2012) proposed that communication an essential asset that assure alliance partners to learn skills between each other and co-ordinate their tasks, helping the alliance to enhance and sustain viable bonds. Importantly, achieving a satisfactory partners partnership can be gained by the development of effective communication skills which is important for enabling ties of alliance's partners (Youngtae et al., 2010).

In contrast, Joshi et al., (2002), Costa e Silva et al., (2012) confirmed that conflicts are happened among crucial partners considered as the biggest threat to successful firm goals. They recommend that the

circumstance be analysed on the base of pattern of intensity of communication, workflow and after which appropriate solution should be commenced regarding to the conflicts. In the same trend, Kauser and Shaw (2004) provides that the effectiveness of a strategic alliance can be decreased if the communication was insufficient and thus lead to conflict among partners. This suggests that a grasp the process of communication is fundamental within alliances if the efforts are to be cooperated and directed towards the alliance success. On the other word, strong performance can be fulfilled through effective communication within alliances. It is the basis for improving high performance strategies and processes. These strategies and processes are often achieved throughout smooth information and communication pattern as such causal conversation with co-employees and decreased misunderstanding because of smaller gaps in context (Joshi et al., 2002, Chang, 2006, Lu et al., 2006). Though, the accuracy of determining the transaction environment, gaining mutual satisfaction, understanding joint needs can be developed by open and obvious communication among partners. Therefore, effective communication among partners is essential in recognising a stable transaction (Gray and Laidlaw, 2004). Furthermore, when partners are similar with each other, even a small clue that will achieve better communication quality (Chang et al., 2011).

Even though, Chang, (2006), Lu et al., (2006), Lurey and Raisinghani, (2001) argued that the advancement in communication technologies importantly facilitate partners cooperation and finally improve alliance performance, this is significant for partners to enhance strong interpersonal dynamics and supporting mechanisms, in which the most evolved information technologies only partially participate in the success of those partners. In respect of face-to-face communication where (Lurey and Raisinghani, 2001) state that it is very necessary to alliance's partners that many of the partners addressed the needs through personal contacts and meeting to establish supportive partners ties, which have been realised as critical to enhancing the success of partnership.

Regarding the relationship between communication with trust and commitment, Chen et al. (2011) suggest that the presence of trust refer to the higher levels of information exchanging, as well as higher quality of exchanged information, thereby the higher level of trust can be achieved by sharing information. Indeed, whilst open and clear communication requires trust, open communication is requiring improving trust as well. In other words, as trust and commitment have grown, firms' orientation becomes more likely because the ease of sharing information with the partners. Also, long-term ties help to simplify communication among partners which become even more informal because higher level of trust and commitment (Shin et al., 2012). Moreover, Badir and O' Connor, (2015), Inkpen and Tsang, (2005) summarised that the higher level of trust can be revealed by a higher level of communication among

partners who sharing information and knowledge, and this in turn will facilitates the establishment of strong relationships. Thus, through several studies related relationship communication and trust demonstrated that more trusting ties between alliance's partners can be resulted through meaningful and timely sharing of information and knowledge, thereby helping managers to organise mutual advantage via decreasing misunderstanding (Kausser and Shaw, 2004).

### **2.10.5 Mutual Dependency**

The concept of dependency effectively is as a factor to achieve success in firm's relationship through exchanging different aspects of (explicit, tacit) resources. According to Lefroy and Tsarenko (2013) dependence refers to the extent the firm relies on its alliance partners for economic, social and financial resources. Following to resource dependence theory, alliances and maintenance the critical resources are considered condition of organisational survival, in which firms highly work into an environment of resource uncertainty and thereby rely on cooperating partners to create resources necessary to accomplish outcomes (Murray and Kotabe, 2005). In fact, in order to deal with uncertainty of environment, the amount of information and knowledge that firms needed in order to achieve cooperation and execution of alliance duties relay not only on the amount of activities performed in alliance, but on the extent to which actors depend on others to fulfil these activities, in which this dependence on each other is the best captured via the level of dependency in an alliance (Lioukas et al., 2016).

Even though, some of the suggestion assert that dominance by one partner might be better for alliance performance which can be efficiently lead to successful alliance (Liu et al., 2010). But dependence has received more attention as it shapes partnership objectives and increases the chances of accomplishing positive profits, because it facilitate decision-making and empower the action (Chen and Chen, 2002). This aspects can ultimately enable both partners not just one dominant through enhancing ability and willingness to pursue targets fulfilment, prompting higher satisfaction with the results, and improving new opportunities, as such solving problems through finding new solutions and access to new markets (Chen and Chen, 2002).

However, many studies have reached agreement as to whether dependence is ultimately negative within alliances relationship (Schuster and Holtbrugge, 2014). According to Xia (2011) assert that unequal dependence in strategic alliance can negatively affect outcomes. When firms are subject to influence their partners and have less control over partners' actions that dependence can threaten autonomy and alliance performance where firms seek potentially change their strategic objective following to raising dependence to suit the willingness of their powerful partners. Further, in cases where alliances are engaged in

partnerships and activities incompatible organisational values, cooperation can negatively impact firms brand, thus other partners will alienate and subsequently alliance effectiveness will be effected (Lefroy and Tsarenko, 2014).

By contrast, the logic of embeddedness supposes that increasing the depth of economic interaction among partners and jump starting a stronger partnership orientation can be happened by higher level of common dependence and in respect of results, higher trust among partners and even more benefit knowledge sharing can be emerged by increasing relational orientation through increasing levels of joint activities (Gulati and Sytch, 2007a). Following a resource dependence perspective, Chen and Chen (2002) argued that survival or termination of alliances is a logical result of regarding the adaptive and responses of allied firms to the dynamics of environmental and partner dependencies. Thus the notion of resource dependence has been emerged through environmental dependence among firms in different environment (Xia, 2011). So that, Gulati and Singh (1998) states that dependence refer to the complicating of the ongoing organising of activities to be completed jointly across organisational boundaries. However, in other alliances, the dependence can be fundamental because each partner depends on the other to achieve alliance tasks. In this case, firms need to communicate with other partners back and forth during the implementation of alliance tasks, in order to solving problems together, and providing feedback regarding partner's contribution on a regular basis (Reuer et al., 2002).

Consequently, higher dependency within alliances, firms required to follow the implementation of alliances duties and contribution of partners more closely and regularly for making the obligatory adjustments to recognise its alliances targets. Thus, increasing back and forth communication will increase the amount of knowledge that firms shares with partners respectively (Lioukas et al., 2016). Importantly, alliances partners working together in each development levels which the factual deployment of both partner's resources to finish each task of the development process will be heightened through higher partners dependency (Ma et al., 2012). Moreover, Gulati (1998) argued that alliance is a relationship approach whereby firms depend on their partners to stabilise the flow of resources. This means, alliances are working to decrease the level of environmental constraints, thereby firms should eventually manage their partner dependence. Applying to Emerson's (1962) definition, partner's dependencies are inversely proportional to the amount of sources of matching resources available to partner A outside of its cooperation with partner B. the argument explain that alliance survival responds to how partner A manage its interdependence on partner B via restructuring its alliance portfolio (Gulati and Sytch, 2007b).

Consequently, interdependence is helping alliance partners to coordinate their technology resources and marketing more efficiently and quickly along these development level (Lefroy and Tsarenko, 2014).

For instance, high dependence among partners empower the development of socialisation mechanisms that enhance inter-organisational information sharing (Lioukas et al., 2016). Therefore, following the example above that the idea refer to that socialisation mechanisms involve shared language, knowledge and other communication techniques that are essential for generating creativity and innovation (Ma et al., 2012).

### **2.10.6 Non-Coercive Power (Democratic Power)**

As with the importance the type of this power, non-coercive power as such a positive factor is working to bind the relationships to greater level between partners and enhance the degree of trust. the ability of non-coercive power is explicit through providing or withhold the rewards within promoting desired behaviors, which its being more effective tool to motivate trust between partners than coercive power (Molm, 1997). Partners using non-coercive power seek to compatible the partners' capabilities and following the willingness of the more dependent firms (Handley and Benton Jr, 2012). The advantages of presence non-coercive power within the alliance relationships, its ability to overcome weakness of consensus and getting fact decisions, enhance skills of innovation and improve the capabilities of addressing the environmental threats and opportunities (Cox et al., 2001), sharing and adopting advanced technologies, stabilize the legitimacy within alliance network (Oliver, 1990).

According to Ireland and Webb (2007) beside the ability of trust in reducing the likelihood of power threats that affect the relationships, existing trust between partners incentives the need to exist non-coercive forms of power and completely prevent such signs of coercive power. As expected that Hausman and Johnston (2010) confirm that there is a positive impact for non-coercive power detected on relationships, which it has ability to enhance trust and considers important element in success of the relationships.

The perspective of non-coercive power advocates a balance in management and equity control. Regardless of the governance structure or management control, partners' capability to influence other partners' behaviour through relational ways is critical to share knowledge, effective interaction, learning, skills and joint decision-making (Inkpen and Beamish, 1997). Relational non-coercive may be more effective than formal management and ownership controls. The relational play essential role in influencing among partners as a tangible social norms and it not just supplements trust in alliance, but conflict resolving and joint decision-making can effectively be facilitated (Steensma et al., 2000).

### **2.10.7 Openness to Challenge**

Generally, building the relationships and create the knowledge need sharing and getting the ideas met through the regular alliance partners meetings. This process of learning mechanism is represented by reports and presentations. The nature of building positive ideas challenges means alliance managers seek to encourage other partners to share their know-how and make it more explicit(Kale and Singh, 2007). This tool enhances the skills of codifying templates or processes which can support the day-to-day decisions of alliance management. This element assists alliance managers to share their experiences and specific knowledge during the decision-making process such as meetings, brainstorm sessions and workshops task forces(Sluyts et al., 2011).

### **2.10.8 Understanding Alliance Objectives**

Sharing understanding of objectives within the map of strategic alliance is fundamental, which empowered the partners to make their decisions strategically and scientifically explicit. Feeling that partners obtain fully understood the alliance procedures, the time of alliance's programme design and money expensed would be saved, more important, keeping all participants concentrate on delivering the alliance strategy (Kaplan et al., 2010). Kelley (1979) identified that understanding alliance objectives and the nature of alliance depend on the ability of partners to be dependent on each other, responsiveness and attribution also are relevant for developing understanding alliance relationships, and effectiveness of joint decisions made, and actions formulated between alliance partners.

Whereas, Sambasivan et al. (2011) added that the level of understanding alliance objectives and the expectations of planning alliance relations are positively facilitated through increasing the level of trust. Planning the alliance relationships is great opportunity, which communication, sharing ideas and knowledge help to build trust and mutual understanding. Enhancing alliance relationships and improving partners understanding rely on effectively joint interaction activities, which then develop alliance profitability and productivity (Jiang and Li, 2008). Thus, building shared mutual understanding for rules and obligations between alliance partners, developing the ability of sharing mental models and enhance the effectiveness of working together, mitigating degree of growing adversarial groups dynamics and help to manage conflict solving effectively (Schreiner et al., 2009).

### **2.10.9 Training**

Organisations are getting huge benefits by alliancing with others. Several of skills and experiences are gained by engaging within training session and workshops through the alliance context. By forming

strategic alliance, all the managers and staff should obtain heavily formal training sessions to accelerate the wheel of learning mechanism and keeping the process within the standard criteria (Parise and Sasson, 2002). Furthermore, Kim and Parkhe (2009) referred that using training to make relations between alliance partners close is essential, especially powerful catalyst to overcome the diversity of cross-cultural and make alliance partners able to share and leverage the knowledge and skills which can be reflected on alliance outcomes. As what it is confirmed by Analyst (1996) regarding the importance of training in developing alliance professionals and benefit from the external experts' knowledge.

Therefore, role of training element in improving alliance portfolio performance is evident. Using training element, provides accurate insights in regards particular aspects of strategic management, which enhance the mechanism of learning from different players into one alliance and different levels of individuals in the same context (Heimeriks et al., 2009). According to Ferrary (2015), by forming alliances and planning for training sessions, partners can obtain needed competencies, which create the opportunity of gaining unique strategic knowledge. Moreover, training alliance participants improves capabilities and increase alliance members productivity.

#### **2.10.10 Teamwork**

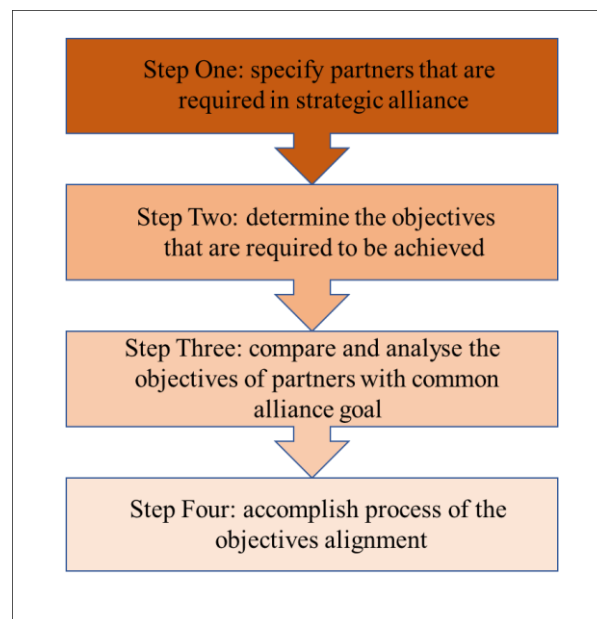
The importance of working as unified teamwork has attracted enormous attention of researchers and it is considered one of the essential elements for successful strategic construction alliances. Regarding the construction sense, Albanese and Haggard (1993) defined teamwork is as group of members seek to share a common mission or the reason of being working together, dependence on each other facilitate the matter of achieving the shared goals, exchanging a commitment to succeeding working together toward determining and solving problems. Fong and Lung (2007) referred that working within teamwork considers key element to determine the satisfaction among all parties on the board of decision making. It means that cooperation managers can see themselves that represent management team rather than as decision makers between other members who represent network parties. The other side of enhancing the principles of teamwork supported by Gabriel (1991) that effective communication is a success factor able to aggregate members around as a unified teamwork, which helps also to support the foundations of trust.

Through formal relationship between training and successful of teamwork, Love et al. (2010) asserted that organising particular sessions and workshops help to enhance the bonds among members of cooperation, also overcoming any confusion happened and communication barriers that could be exist, which encouraging explicit discussions without the fear of any grudges. Further, Che Ibrahim et al., (2014) Jelodar et al., (2016) explain how importance of working as a teamwork during the construction

integration strategies, and what the positive signs can benefit back on the performance, and also how can collaboration's members be improving their creativity, innovation, communication skills, then reflected on their confidence of delivering the project.

### 2.10.11 Aligned Partners' Objectives

The perspective of this element is vital, which is to clarify the nature of the alliance concept and how is create value for alliancing organisations, then draw clear lines of specific relations to cooperate objectives. Aligning with the previous statemen, Holmberg and Cummings (2009) described that in order to know the step of selecting right partners is fundamentally set, it should make sure that objectives and strategies are evidently aligned with the alliance common goal. The importance of alignment the objectives is substantial and alliance management should have a sense of supporting and leveraging integration objectives and strategies more smartly than traditional contracts. The process of alignment alliance objectives illustrated in Figure 2-5 below.



**Figure 2-5 Steps of Conducting Alignment of the Strategic Alliances Objectives**

Strategic alliance success depends on the effectiveness and efficiency of aligned partners' objectives. The reality of proper designing of any organisational cooperation, management must put the strategy package together and balance it to be compatible between organisation's external environment and internal environment (Palacios et al., 2014) to develop alliance project scope from an early stage (Davis and Walker, 2003). According to Black et al. (2000) identified that trust, communication, commitment of senior management, evident understanding, consistency of objectives are main elements for success



partnership strategy. For that, align goal of partnering is essential for improving relationships among alliancing partners (Cheung et al., 2003).

### **2.10.12 Selecting Right Partners**

Organizations who forming strategic alliance, require revising the backgrounds of partners who to be selected. This step is important to know how much goals compatible, proper skills, effective motivations and complementary strategic orientation. Hence, selecting right partner is important factor enhancing alliance performance success (Lee and Cavusgil, 2006). Finding proper partners is not easy way but require careful screening and consuming more time. Selecting right partners depend on developing the understand of targeted partners toward the expectations and objectives of alliance (Büyüközkan et al., 2008). Determining criteria of selecting right partners was identified by Medcof (1997), where put several of criteria points relating to alliance strategy: strategic fit with perspective of partners, capability to perform an entrusted role, operational compatibility among alliance parties, commitment of targeted partners, appropriate control mechanism that is used by selected partners. Whereas, Borch and Solesvik (2016) presented another classification for the criteria of partners selection including, reputation, trust between top management and team, strategic fit, stability of financial condition of partners, market position for partners within the industry. The process of seeking appropriate partners commences from organisations needs for efficient resources and competencies, filling this gap is hard to be done separately.

Successful thinking is by which best way to arrange with compatible partners who possess the required resources. Creating successful alliance should be flexible and adaptive, all parties associated required to be committed to others, building links of trust and sharing learning and knowledge depend on this context (Solesvik and Westhead, 2010). Building trust is widely known as key issue in consisting relationships of collaborations. Continuing of relationships is related to prior cooperation done before, because partners will be able to comprehend others and avoided the potential problem of arising conflict during alliance journey, which can increase the possibility of successful the alliance and profitability (Saxton, 1997).

### **2.10.13 Partners Interaction**

The consequences of partners interaction depend on the nature of alliance relationships atmosphere between partners. This atmosphere is categorised by power of combination cooperation and confrontation (Gadde et al., 2010). presence positive collaborative features such as trust and commitment are important to partner interaction and strengthen the relationships, and then handling the aspects of tension such as

conflict and power (Gadde and Dubois, 2010). According to Laan et al. (2011) assured that conducting interaction between partners is surly important, as well as transparency should be enhanced and keeping the alliance commonly recorded and administrated. This factor able to increase the capability of solving problems and leading the attitudes positively which can be reflected on enhancing the level of trust (Dewulf and Kadefors, 2012).

Further, Nord (2012) suggested that in the designing phase of building process of construction collaborative project, the interaction is being as co-creation of experiences exchange. Successful of partners interaction is depending on how partners' goals settled within the overall project objectives, which engaging dialogues, open access and transparency the risk-solving and benefits would be portion all partners behaviours. Thereby, the success can be determined by combination of open meeting initiated and the nature of atmosphere through the cooperation meeting. Accordingly, close integration between partnering actors enhanced by the level of commitment of top management and close effective interaction between lower hierarchical levels (Eriksson, 2015). Therefore, the impact of interaction between partners can be appeared in the layer of required resources that alike are physical or organizational which important in developing businesses and ties. Thus, increasing interaction and mutual adaptation related to resources and activities are working as incentive for strengthen the partners bonds (Havenvid et al., 2017).

#### **2.10.14 Constructive Conflict**

Discovering constructive conflict as one of the behavioural success factors for strategic construction alliance is critically essential. Constructive conflict can be defined as positive elaborating of ideas discussions that stem from variety opinions and evident communication, which lead to further communication and positive temporary agreement (Raes et al., 2013). Vanpoucke et al. (2009) shown that using constructive conflict as a one of resolution techniques, where aligned organsiations jointly can eliminate negative conflict, which this type has positive impact on implementation of strategic alliance. The way of this positive conflict able to determine the continuity of relationships and achieving the success, where information and knowledge flow form the foundation of stability of supply chain integration, which can associate with building more advanced forms of relationships cooperation. (Mockler, 1999) demonstrates that effectivity of constructive conflict stems through providing opportunities for partners to make sure that they know each other better and build the foundation of synergistic creativity skills through using variety to pursue new directions, proper communicate and boost policies and create new opportunities. Thus, the positive indication of constructive conflict that partners have joint interest which can reaching mutually satisfactory decision (Delerue, 2005).

Li et al., (2011) emphasises that main aspect of constructive conflict effects on cooperation performance is being knowledge acquisition. Managing cooperation relationships is represented by focusing on relations and dealing with constructive conflict aspects can be represented relational capability which leads to gain highly effective knowledge acquisition from other partners, which can be therefore considered as a source of organisational competitive advantage. Gaining benefits of this conflict can be acquired through following its aspects; positive discussion, bargaining, and win-win approach related to conflict, in which partners make sure this better strategy to perform the current task properly (Tjosvold and Su, 2007). Thus, positivity of constructive conflict can be reflected on relationships inside the supply chain through two reasons; first, ability of constructive conflict to promote creative solutions regarding the raised problems by supplying diversity of thinking directions, in which partners can leverage from joining within open discussion process and produce intelligent ideas able to solve crucial problems (Song et al., 2006). Second, partners can comprehend their partners' behaviours, competences and commitment through applying constructive conflict. Discussing issues of partners openly, and constructively not just helps partners to finish tasks effectively but enable them to better evaluation the attitudes of each other (Li et al., 2011).

#### **2.10.15 Aligned Partners' Visions**

Alignment of alliance's partners visions determines during the process of identification, where all alliance members feel that their perspectives and behaviours are truly belong. This stage appears through high level of effective commitment. Strength of united partners can be measured by powerful of aligned visions, which is considered one of essential elements for strategic alliance success (Christenson and Walker, 2004, Christenson and Walker, 2008). Establishing and aligning visions are usually happening widely in early stage of creating relationships. The visions of construction projects can be developed by using continuous training and coaching throughout the duration of the relationship. Further, maintaining these relationships depends on vision and capability of persons selected to lead this project, which being has clear trust and commitment (Davis and Walker, 2009). Sharing common visions, it might reduce the opinions divergent concerning the direction of supply chain implementation.

Aligning visions is required when building a joint relationship plan. To align partners visions properly, effective communication required, open and regular meeting among ATM and LTM participants (Denolf et al., 2015). According to Oladinrin and Ho (2016) through sharing visions among all parties of organisational relationship system, it is ensuring that vision planned to achieve regardless of functional diversity. Moreover, long-term of benefits of ethical codes would be obtained which is considered essential for organisational strategic planning. Thus, successful partnering projects move forward through

alignment of visions and objectives, one need to achieving this success, align attributes and investing partners who execute projects (Cacamis and El Asmar, 2014).

#### **2.10.16 Behavioural Accommodation**

Accommodation of partners' behaviours within strategic alliance process is one of success factors can lead the project toward the success. To ensure that partners gain greatest level of accommodation, it should be there integrity between each other regarding the information and knowledge, growing understanding each other, budgetary contribution, joint supportive fashion and existing organisational realities to be adapted (Hoegl and Wagner, 2005). Regarding to how accommodation being motivator for alliance relationships, Bello et al. (2010) expresses that alliance partners accommodation means relational interaction patterns can be stimulated and keeping alliance inputs timely secured, which enhancing prosocial behaviours considers crucial for improve alliance performance and shift it to a higher level. Thus, accommodation as essential element is not only seeking to solving problems and constructive discussion, but considers fundamental for maintaining relationships, mitigate opportunism behaviours and enhance partners abilities to exchange efficient information (Zeng et al., 2016).

#### **2.10.17 Leadership**

The role of strategic alliance leadership represents by its crucial capability in driving the project to success. Strategic management capabilities can be divided into two types; first, operational (substantive) which is represented practices, mechanisms, procedures that enable the alliancing organisations to perform operational activities (Winter, 2003). Second, innovation (dynamic) which means on the other hand that capabilities of purposefully creations, modifying an existing resources and knowledge base and extend it (Helfat et al., 2007). Although there are different types of leaderships (transformational and transactional), but the role both leaderships in strategic alliance emphasis on developing behaviours of individuals, and the way of encouraging participants to share their opinions and ideas, which stimulating and empowering critical thinking to enable partners developing problem-solutions (Schweitzer, 2014).

For this responsibility, Schweitzer and Gudergan (2010) asserts that successful of strategic alliance leadership represents by the capability of creating an environment of trust, maintain clear strategic vision and keeping genuine empathy relationship with alliance members. This responsibility is not easy, leadership team should be able to motivate the ability of participants to mobilise their interests, commitment and energy, as well as leaders should be capable to direct subordinate employees in regards

the purpose for implementing tasks or striving to achieve a target and getting the advantageous of position in negotiation and decision making (VanVactor, 2012, Norzailan et al., 2016).

## **2.11 Behavioural Negative Factors of Strategic Railway Alliance**

This section is specified for elaborating the main BNFs that can hinder the performance of strategic alliance. The following factors are adopted from literature review and primary data collection. (destructive conflict and opportunistic behaviour) are the main factors obtained from the literature, whilst (distrust, lack of commitment, lack knowledge sharing, lack of mutual dependency, misunderstanding alliance objectives, lack of mutual communication, unaligned partners' objectives and coercive power) are the main factors gained from interview sessions.

### **2.11.1 Destructive Conflict**

Essential in alliance-building process is that partners tend to associate similarity about values and beliefs with trustworthiness and attractiveness. This participation sometimes results in the evolvment of in-group versus out-group biases that are probably to be magnified in conditions of uncertainty and ambiguity about the future (Vaara et al., 2012). Therefore, partners in merging alliances often not understand and even distrust the partners on the other side (Vaara et al., 2003). If unsolved, mutually supporting distrust might increase in intensity among the partners of the acquired and target firms until partnerships are damaged and social combination fails (Stahl and Sitkin, 2005). consequently, the important cultural differences are probably to be involved with conflict, this mean the tensions of inter-group partners ranging from differ suggestions to mistrust and open confrontation (Vaara et al., 2012). In terms of conflict, indeed, all conflicts are considered as dysfunctional conflicts which are defined as a form unhealthy behaviours as such harming decision makers throughout distorting information, interaction with partners with hostility and distrust, or constitute barriers through the process of decision making (Ruekert and Walker Jr, 1987). Many of partners place an emphasis on needs when influencing their partners and on knowledge gate keeping because conflict has an opportunistic side, where it is typically decrease the level of collaboration, the combination of strategy actions, and the quality of strategy planning and execution (Chang and Lee, 2012).

However, Das and Teng (2002) proved that the important aspect among partners is conflict and support this suggestion by opinion that conflict possibly can arise from the variety of characteristics of the actors or from the content of the alliance agreement, which is management conflict is a main aspect in sustaining equality and efficiency through the length of the cooperation. He argues that conflict is a multi-

dimensional conception, involving of at least two elements 1) work-related conflicts, and 2) relationship conflict. Then, there is several conflicts called functional conflicts working to maintain the alliance objectives and develop performance. Further, following to importance of conflict as positive factor Kale et al. (2001) states that conflicts inevitable and being legitimate and often desirable within the firms, supported that conflicts do not jeopardise the alliance. Changing sometimes can be created by conflicts or at least force partners to re-think of the prevailing situation. The question is how to deal with conflicts not how to remove it. Importantly, in order to maximise the advantage by conflict that being essential to underlying relationship, where Mohr and Spekman (1994) concludes that the success of the alliance will strongly be influenced by solving conflict, whereby the negative effect on the success of the alliance will be happened through unsatisfactory resolution. According to joint venture context, Chao (2011) suggests that when a conflict arise, partners must determine how to address it appropriately which their ability to establish a ties with the partners and their capability to collaborate will continually be developed. Also, stimulating learning can be crucial for the success of the alliance by determining the discrepancies that generate conflicts in partnership management, thereby the deadlock that the conflict has generated is demolished and the alliance continues. Furthermore, del Mar Benavides-Espinosa and Ribeiro-Soriano (2014) confirmed that a persisting alliance will depend on partner's capability to adapt their collaboration attitude and routines. Consequently, while the alliance continues, the partners will obtain knowledge and experience in cooperation and comprehension each other even better, eventually their capability to cooperate will be improved. Regarding the means that help to manage conflict, which communication is helping partners to identify the contribution of each other within conflict management (Welbourne et al., 2012). Joint conflict management confirms to facilitate knowledge transmit in two sides: by decreasing the impeding influence of partner conflict, and by operating as a transfer mechanism in and of themselves (Meier, 2011).

The discussion above identifies reasons of conflict that means the importance of finding a resolution for it. As the alliance process progresses, relational, cultural, human problems are likely to arise, which jeopardise the alliance work if not dealt with quickly. The changing in initial conditions of alliance can be happened by these problems and then the partners must be aware about these changes, meaning that they will have to be reevaluated for adapting the agreement accordingly (Heavey and Murphy, 2012). Eventually, if the changes done during the alliance period, discrepancies among the partners might be raised that may affect the relationship and lead to conflict in their ties (Walter et al., 2010).

When the partners fail to confirm on decision-making and communication methods, their reciprocal expectations remain underlying and actions unorganised, thus leading to distrust and conflict. Labour and

pursue independent targets will be divided, so that partners interaction is decreased and limits relationships (Kale et al., 2001). Similarly, when one partner responds to the emerging events more quickly than the other is hesitant, conflict is properly to emerge regarding the timing and way of coordinated response. Unsynchronised, partners may hold back commitment and act individually when not supposing the other partner to coincide with desired response (Lavie et al., 2012). Also, Tsang et al. (2004) verified empirically that intensity of conflict decreases knowledge transmit and level of trust among partners. However, joint conflict management, therefore seems to operation as a trust-building mechanism as knowledge transmit practice (Kale et al., 2001). Collins and Hitt (2006) Proves that firms regularly engage in partners' interaction which in turn high level of communication quality and discerned fairness in the resolution of conflicts, are established to transfer much more knowledge within alliances. Thereby, to build the relationship between partners, they should effectively generate a foundation for norms of mutual and trust that encourage coordination and mitigate conflict at next stages of the alliance.

### **2.11.2 Opportunistic Behaviour**

The notion of opportunism includes a wide range of possible different behaviours. In the original theory, opportunistic behaviour is defined "self-interest seeking with guile". In his work Williamson (1985), p. 47 prescribes guile as "lying, stealing, cheating, and calculated efforts to mislead, distort, disguise, obfuscate, or otherwise confuse. In practice, opportunism include a wide variety of behaviours: 1) distorting of information, involving apparent behaviours such as lying, stealing and cheating, as well as much more astute behaviours such as distorting information by failing to make exposure, and 2) retreating from explicit or implicit commitments, as such failing to achievement, shirking, promises, liabilities (Lui et al., 2008). Strategic alliances arrangement usually are fields for potential opportunistic behaviour by orientation of partners with variety of sets of targets (Das, 2006). Thus, when the level of opportunistic behaviour become high, the favourable outcome of alliance will be less (Judge and Dooley, 2006). In similar trend, when negative effects are facing firms so that continuing alliance is probably to incur a loss to the firms allied, the opportunism could be used to avoid the loss. The tension among partners within alliance so opportunism behaviour stems from such tension is sometimes unavoidable (Kang et al., 2016). The understanding sources and causes of tension of opportunism in strategic alliance have been found that factors such as inter-organisational rivalry, ambiguities in role and responsibilities, equity involvement, reciprocity hostages, payoff inequity, differences culture, insufficient trust of a partners, incompatible alliance specific investments, asymmetric objectives (Das and Rahman, 2010a).

The motivations or causes opportunism are discussed by Das and Rahman (2010b) who categorise the determinants of opportunistic into three types: economic, relational and temporal. Regarding

economic determinants, researchers argued that firm's opportunism is caused by economic considerations, meaning that firms within alliance are driven via the production advantages or by decreasing of economic losses from alliance. If these needs become highly necessary for firms, so the self-interest will be pushed over collaboration which might result in opportunistic behaviours. For relational determinants, when alliance partner's feeling and attitude negatively are accumulated for other alliance actors, then the firm tend to illustrate opportunistic behaviours. Also, for temporal determinants, alliance partners try to show variety behaviours following to the time duration, because if alliances are formed for short time, so firms are probably to seek for the easiest exit an opportunistic outcome. However, when the period of formation is long, they will have different strategies to deal with partners (Ghoshal and Moran, 1996). Whereas, Luo (2006, p. 123) classified opportunism for two forms (strong and weak). Strong opportunism involves these actions that "violate contractual norms (terms, clauses and conditions) that are explicitly codified in the main body of a contract as well as in its various supplements signed in later stages", whilst weak opportunism includes these attitudes that "violate relational norms not spelled out in a contract but embedded in the common understanding of all members in a specific relationship, which consequently impair another party's interest". To determine the major distinctions among these two forms of opportunism, Luo et al., (2015) states that:

1. Strong opportunism is much more noticeable where it represents the reflection of violation of explicitly specified conditions in an agreement, while weak opportunism explains violation of implicit norms.
2. The effect of strong opportunism is faster but less durable impact on alliance relationship because partnership agreement has clear rules to deal with violations, whilst weak opportunism usually is breaking ties because it does not legislate punishment rules.
3. Finally, repairing strong opportunism typically is easy because contracts provide obvious remedies to address problems, whereas weak opportunism is more difficult to repair because does not clear and subtler.

In contrast, reducing risks of opportunism behaviours have been argued that alliances can overcome these behaviours by formal contract in which it states how variety future circumstances will be addressed, it can provide formal provisions and rules to mitigate the opportunism behaviour and decreases uncertainty about partner's behaviours and gains (Lusch and Brown, 1996). In addition, formal agreement generally specifies cheating events and punishments in written format, so it represents fundamental point to judge the extent of opportunism behaviours. Lastly, partners can depend on this contract to handle conflicts arising from disputes because formal contract clearly provides prescriptions about nature of a



transaction (Cavusgil et al., 2004). In same trend of formal contract, furthermore, Carson et al. (2006) suggests that many of monitoring mechanism can be provided by formal contract for reducing opportunism behaviours within alliance. This mechanism not only exposes the level to which the partners have composed with terms of the agreement, but also motivate the partners to achieve its responsibilities because divergence typically can result punishments or termination alliance relationships.

### **2.11.3 Coercive Power (Dictatorial Power)**

Many studies have identified power as central to trans-organisational relationships. It is considered as one channel partner's ability to influence the behaviours and decisions of the partners (Yeung et al., 2009). Using power alongside with trust is more important for relationships attributes which influence partnership practice. Alliance partners are conditioned by the power to make investments to maintain business ties (Cox et al., 2001). Also, partner's cooperation generally is influenced by power structure (Zhao et al., 2008). According to Keltner et al. (2003) power is defined as asymmetric control over valuable resources into social relationships. Thus, asymmetric word is utilised to define power as existing in relationships which these features help to capture the relative state of dependence among two or more partners (Emerson, 1962). Regarding to classification the types of power where Molm (1997) classified power into two forms (coercive and non-coercive power). Coercive power refers to the firm's capability to exert influence on its trading partners based on the exercising of force, with pay intention of controlling negative gains relate to each other, as well as through punishment or threat.

when partners use coercive power that will influence others, thereby other partners might opportunistically react to avoid punishments. Therefore, the investment among partners or sharing knowledge will be hindered. Also, coordination process within alliance will be hard to accomplish as a result of potential opportunistic partner's attitude (Jain et al., 2014). According to supply chain perspective, if the supplier uses the coercive power, the supplier cooperation will be obstructed. Yet, the assumption is that suppliers cannot utilise their own power to affect internal collaboration behaviour directly, because resource-dependence view predicts that power usually comes from the control of resources. Thus, majority of resources required for internal alliance are controlled by the partners themselves, partners do not have the power to influence others' internal decision. Importantly, for this perspective, power will be used by those partners to facilitate cooperation of supply chain. Therefore, coercive power may damage the relational norms and collaboration, thereby conflict will be increased and eventually willingness of firms to engage together will be reduced (Lu and Hao, 2013). Based in transaction view argument that firms will try to avoid opportunism behaviours, but if the partners do not establish trust with others, alliance may be shown as an attempt to pursue opportunism behaviour, and other partners will try their

best to avoid such conditions, because this action will break the partners' relations (Yeung et al., 2009), thereby, negatively influence the alliance performance and partners' satisfactions (Yu and Leung, 2018).

#### **2.11.4 Distrust**

As aforementioned above in trust section, alliances and partners seek to share and feel that trust is grown entirely among parties. In contrast, when alliancing organisations notify that the level of trust getting low and other partners try to free-ride or exploit the tacit knowledge and critical resources, then partners might fear to engage totally. Therefore, partners will authorise band of extensive regulations for monitoring other partners, in which it fundamentally guards against assets leakage (Inkpen, 2000). This issue will raise the motivation of less willing to collaborate, more thinking to pursue self-interests and keeping critical knowledge for own use (Nielsen and Nielsen, 2009). through using the traditional procedures of formal contract during applying the principle of alliance, aspects of opportunistic behaviours might be appeared, partners maybe reluctant to elaborate draft of targeted plans, then contractual relationships between partners might feel distrusted (Jiang et al., 2013), poor communication would be expected (Pal et al., 2017), and mainly lead to conflict among alliance team, and poor collaboration (Koolwijk et al., 2018).

#### **2.11.5 Lack of Mutual Communication**

Appearance of opportunistic behaviour within strategic alliance relationships stimulates negative aspects. Confidence of alliance partners in sharing information and effective communication substantially can be affected by alliance atmosphere change. Therefore, the level of trust and commitment towards partners would be reduced significantly (Sambasivan et al., 2013), thus alliance performance will be decreased (Schöttle and Gehbauer, 2012). Consequences of poor communication, distrust and lack of commitment and collaboration increase adversarial roles which are embedded within aspects of collaboration relations. Accordingly, efforts of teamwork would be discouraged, leading to blame partners' culture and poor cooperation performance (Che Ibrahim et al., 2014). Aligning with problems poor communication between alliance partners specifically in early stages of alliance integration, (El Asmar et al., 2009) added that this issue leads to poor of strategic planning, delays in delivering project, conflicts during the alliance construction process, project being overrun, (Amoatey et al., 2015) then harm general alliance outcomes.

#### **2.11.6 Lack of Commitment**

According to Davis and Love (2011) stated that limitation or lacking commitment is negative indication during implementation of alliance process, partners relationship will remain fragile and future of it can be ended evidently. Empirical findings of Jacobson and Ok Choi (2008) based on transaction costs theory

that lack of unifying commitment and vision of public private partnerships project can negative influence the outcome of project, which weakness both elements might result conflict relationships. Additionally, lack of commitment alike from top management or from aligning partners will impact the structure of supply chain project, poor of understanding for the strategy concept would be obvious, implementation of supply chain tasks negatively will be reacted (Akintoye et al., 2000, Hwang et al., 2013, Emuze, 2017). Furthermore, Davis and Love, (2011), Chin et al., (2008) mentioned that lack to gain partners commitment within alliance project is resulting a weak rapport which being experienced and grim report that can impact an alliance future procedure.

### **2.11.7 Lack of Knowledge Sharing**

Although essentiality of partners coordination in exchanging experiences and sharing knowledge and how its important in deepening norms of relationships. But increasing coordination issues, can emerge problem of preventing alliance parties to share sufficient knowledge and affect the idea of being partners depending on each other, what nature of decisions rule should use, how to distribute resources equally, and determining shape of information required (Prashant and Harbir, 2009). Further, Thunberg et al. (2017) explains the problem of lacking knowledge sharing that if the process of knowledge sharing between partners has stopped, alliance parties will reach to unfamiliarity with the planned project. If the partners' knowledge within supply chain is not shared during supply chain functions, providing materials that are required to deliver the project can be negatively understood and badly affect the supply chain procedures, in which then essential practices are not distributed naturally around cooperation group (Pulido et al., 2014). Importantly, Ning and Ling (2013) derives that lack of knowledge sharing stems from lack of competence, which represents a common barrier to implementation practices' relationships. This issue can cause lack of contractors' capability (Ling et al., 2006) and improper project planning (Rahman and Kumaraswamy, 2008). On the other hand, Thunberg and Fredriksson (2018) revealed different reason for lack of knowledge sharing, inefficient communication channel within the project can lead to decreased knowledge sharing. This point attracted Ellegaard and Koch (2012) to confirm that poor of integration and coordination between construction supply chain parties can result unsuitable partners selected, and inadequate information shared with partners.

### **2.11.8 Misunderstanding of Alliance Objectives**

Partners' misunderstanding often appears based on some negative sides during strategic alliance implementation. Although role of mutual communication mitigates the risk of partners misunderstanding but using formalisation and giving orders during conducting alliance tasks can raise the degree of

happening misunderstanding for alliance objectives. Generally, difficulty to interpret partners behaviour, usually lead to create suspicion, then this suspicion eventually can be turned to distrust (Agarwal et al., 2010). While, Walter et al. (2015a) mentioned another reason for occurring partners misunderstanding, failure for meeting the requirements that defined during the initial agreements, it is signs to emerge misunderstanding, and then opportunistic behaviour will be high chance to being exist. Lower level of communication also would be helpful element to clarify this negative situation. According to Das and Kumar, (2010), Kumar and Patriotta, (2011) shown that different organisational culture affects partners sense-making ability that they are part of alliance team, which being reason for appearance inaccurate attributions in regards others' intent, in which ambiguity will be emerged based on partners' culture differences. By presence of ambiguity, misunderstanding and conflict would be high chance to be exist, as well as this difference considers motivator for evolve distrust and influence the ability of conducting proper collaboration and getting accurate decisions to be made (de Man and Luvison, 2014).

### **2.11.9 Lack of Mutual Dependency**

The importance of mutual dependency factor is not being different from other behavioural success factors, lowering the level of this factor affects the efforts of achieving strategic alliance success. According to Grover and Malhotra (2003) asserted that the presence of opportunistic signs within the strategic alliance process, the needs for improving capabilities of monitoring transaction cost is immediately required. Based on the negative impact of this factor, mutual dependence relations indeed will be influenced. This is because if a partner's organisations feel that they are exploited by other partners, the confidence and enthusiasm which are important for building close relationships with specific partners will be fundamentally decreased. For this reason, using this protective behaviour can appear in regards that unwillingness to being share mutually dependent. Because the acceptable level of dependence requires a high level of agreement and collaboration of decision-making to succeeding cooperation tasks, unified goals, rewards distribution, in which presence of opportunism contributes to minimizing further engagement of partners (Sambasivan et al., 2013). Zhang and Huo (2013) mentioned that low level of dependency between partners cannot lead to strategic ties for supply chain partners. Opportunistic behaviour would be possible to exist and harm the future of cooperation, in which project might be less likely to be developed comparing long-term oriented collaboration. Further, Park and Lee (2014) explored the relationships between trust and partners dependency and investigate how the interaction can be affected through this relation, where if the dependency among partners are being low, the chance of enhancing the interaction in the alliance and developing partners' trust will be negative.

### **2.11.10 Unaligned Partners' Objectives**

The possibility of failure of strategic alliances stems from the lack of aligned partners' goals. At this stage, conflict between partners would be the obvious scenario generally, as well as the diminished commitment that will withers the cooperation. Therefore, this behaviour, at worst can lead to creating opportunism and pursuit to feed up self-interest without any moral obligation for other partners feeling (Gulati et al., 2012). This issue might lead to undesirable implications such as unaligned objectives strategically among the departments; measures which cannot be intensively understood or achieved; targets of the alliance could be unattainable or compromised (Ayoup et al., 2016, Ayoup et al., 2015).

The above-mentioned, in table 2-3 many of studies that identified the behavioural factors which are discussed deeply in the previous sections. Nevertheless, number of these studies have been conducted in the construction industry in the UK. Taken in consideration also the importance of the railway networking as a main continuous developing sector in the UK construction industry, as well as increasing challenges in this sector resulting from adopting a variety of collaboration strategies and suffering this sector from some gaps during implementation these strategies particularly behavioural challenges, which are mentioned in section 1.1. Additionally, strong recommendation and support have raised from the Railway Networking in the UK based on their latest report in 2019 to adopt strategic alliances strategy to implement new projects to achieve the new business plan of 2019 – 2024. From this point, the target of this research will be toward the railway context in the UK.

## **2.12 Collaboration in the UK Railway Sector**

The beginning of thinking of establishing collaboration between companies in the UK construction and railway sectors back to 1970s. the reality of thinking started through feeling all stakeholders that there are challenges confront adopting fast-growing technologies which impact the speed of projects improvement process. Due to the rapid increase of construction cost, impose on the UK government at the early 1980s applying compulsory competitive tender to enhance the opportunities of these sectors to harness from growing competition. The triggers of insecurity in the early 1990s made both sectors relaxed and led to increasing fragmentation in terms of delivering projects timely. But the concept started to come up after Latham's report which was published in 1994 encouraged the construction industry to establish collaborative and working integration with the supply chains to decrease the issue of construction costs and setting a predicated time for delivering projects (Kapogiannis and Mlilo, 2019). Continuing the UK construction and railway sectors working under partnerships and collaboration have been taken a long period, preference these strategies because of facilitated conducting railway maintenance projects and

maximising efficiencies (Gurevich et al., 2017). This point was the starting spark for the UK government to implement long-term collaboration in order to deliver infrastructure projects, which is considered revolutionary strategies for managing data of projects implementation. Hence, the expected benefits of conducting these strategies getting access to the rapid advances of partners' technology developments, increase the capability of dealing with the huge amount of data and analyse it quickly and by lower cost, developing tool for managing increasing information flow and sharing needed resources. improving the baseline data resources and regular update of usage it reduces uncertainty and unnecessary tasks. Maintaining collaboration between members with teamwork, helps to improve the accessibility of unlimited data, which enables enhancement of a teams' capabilities to deal with problems and thus support their ability to reach proper decisions and solve problems (Eastman et al., 2011). The next section discusses the critical needs that enforced the railway sector in the UK to adopt collaboration strategy.

### **2.12.1 The Need for Applying Collaboration Strategies in the UK Railway Sector**

According to arguments mentioned above, the trend of researches that encouraging to change the traditional way of delivering projects have been started since the late 1990s, and, fact efforts commenced to transforming railway project to collaboration ones since 1994 first report enhancing decision-maker to taking this opportunity. These efforts were seeking to develop a new generation of conducting work and enhance the opportunity of exchanging information and knowledge, also encouraging bringing individuals together from different backgrounds within one organisation (Kapogiannis and Mlilo, 2019). Continuing adopting traditional strategies within the railway sector and increasing the amount of excessive spending on running renewal of railway projects and tracks, encouraged Kapogiannis and Sherratt (2018) to repeat the call through the study findings to work collaboratively. The effort of this study argued that the railway sector can develop a principle of unlocking contractors efficiencies contribution by a proper shift in supply chain relationships according to the idea of competition and partnerships. They identified applying collaboration can achieve improvement in strategic planning, better usage for resources, standardisation of assets configuration and as well as essential to achieving high value for money. Substantial successful in implementing this strategy is improving the collaboration of partners' behaviours and cultures and gaining benefits of the integrated high experience of management teams. A research published in 2009 by the group of researchers from University of Nottingham attributes through conducting exploratorily semi-structured interviews and had reached to develop descriptive model, where the findings refer to the group of human factors give an overview of their relevance and value for the essentiality of collaborative work (Patel et al., 2012). In specific, this study revealed that the internal behaviour factors that influence building collaborative relations in project and business environment are

trust, performance, management, conflict, goals and experiences. In addition, the internal factors that influence the business are teamwork, individuals, interaction, support and tasks (Bindl and Parker, 2011). In order to improve the process of the project, a number of these factors, skills and activities need to be applied and developed. Therefore, the efforts of railway companies have been motivated towards establishing collaborations, that facilitate the acquirement of skills from highly experienced partners and create a trusted environment to enable the sharing of knowledge smoothly. With ambitions to work within a cooperative environment, that enables the estimation of potential costs and avoids the risk of failure to implement the project, along with increasing cost challenges.

The behaviours of teams have a massive effect on companies' effectiveness within the railway sector. The importance of behaviour aspects is manifested by the capability of project managers in conducting positive interaction with team members. Furthermore, engaging in a team and sharing behavioural characteristics positively, represents actual steps towards enabling integration between members, which is required in regard to formal and informal decision making to solve problems. Thus, behaviours as social behaviour impacts the performance of the collaborative project (Bindl and Parker, 2011, Kapogiannis and Mlilo, 2019). At this point, according to RMT (2017) the UK railway industry in 2010 took a step toward adopting collaboration to gain benefits which had so far being lacked in other key traditional methods. Cross rail sector, several of the biggest rail companies have integrated together to deliver big projects across the UK and has attributed to achieving evident success such as project of developing underground of London (NetworkRail, 2019a).

According to Rahman et al. (2014), although there is a lack of providing an evident guideline for the collaboration process between partners project's, participants realise that sharing trust and knowledge is a fundamental component for succeeding railway projects and relationships. Importantly, Kapogiannis and Mlilo (2019) argued that the capability of human communication, knowledge support, mutual interaction and trust able to transform the practices of the actual projects to be more effective in global railway projects. In order to enhance these behaviours, managers and partners require developing their anticipatory skills and change strategic orientation. Construction these behaviours will motivate the operational and organisational system of collaboration and driving the strategic change strongly. Therefore, the ability of this approach to add value for project management will be massively high.

However, The forecast of the UK railway sector is expected to grow about 50% by the mid-2030s. Future conducting collaborations in the railway sector will require adopting new way of collaboration with concentration on role of human behaviours in delivering railway projects (O'Neill, 2014, Cowie and Loynes, 2012). The literature review further illustrates that collaboration strategies have long time taken

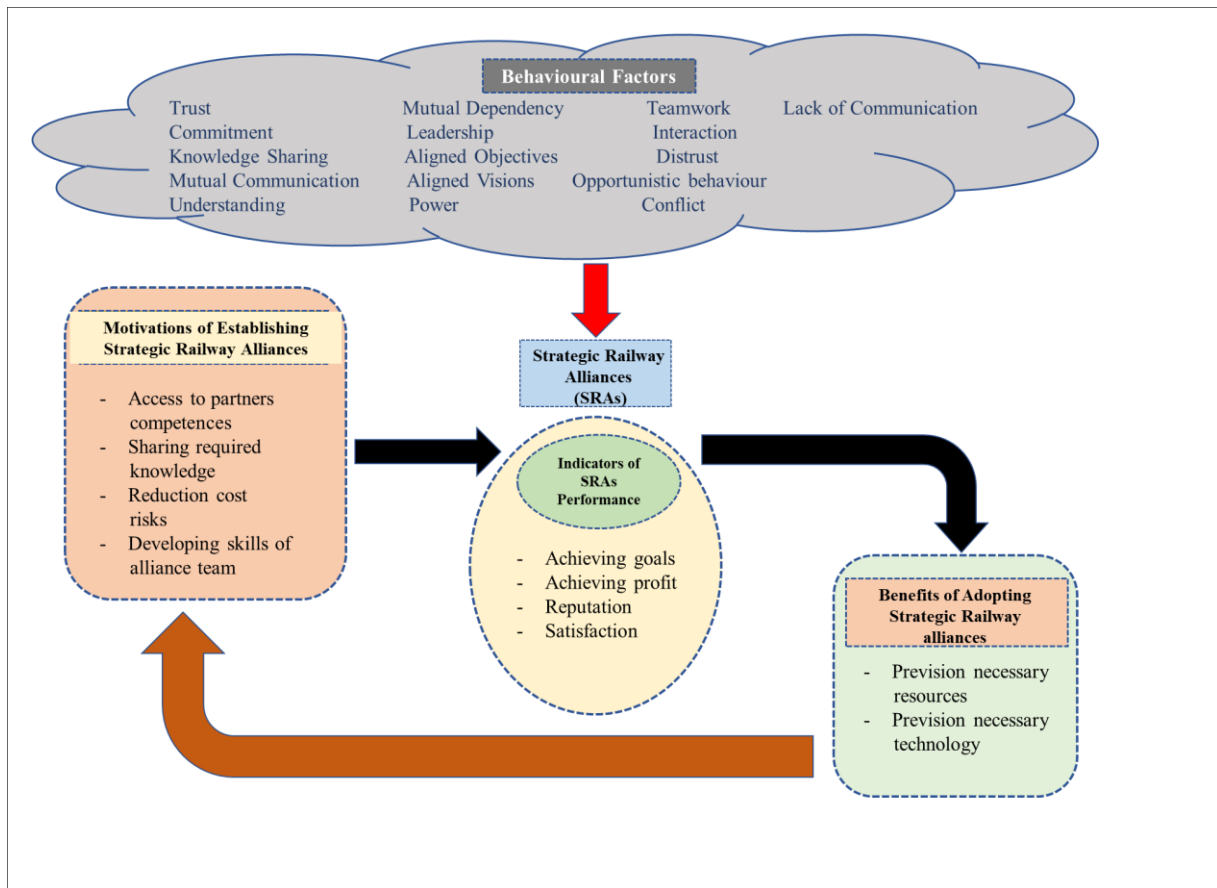
of researchers' interests and have thus been studied for a long period of time. Disproportionately, strategic railway alliances have not been studied vastly. Therefore, this research concentrates on SRAs as a contribution to the knowledge pool. Accordingly, as shown in section 2.12 SRA in the UK is selected as the research focus in order to achieve and accelerate an in-depth study. Additionally, the research's aim and objectives have formulated within the UK context to address the research problem concerned. The outline of the conceptual framework for the empirical aspects of this research and its gap is presented in the next section.

## **2.13 The Conceptual Framework**

A conceptual framework is a group of concepts that can assist to comprehend the relationships between the concepts and their effect on the phenomenon under investigation (Ngulube et al., 2015, Fisher, 2010, Ward et al., 2012). The function of a conceptual framework is to communicate ideas and therefore has been selected as an instrument to link concepts and its relationships to research problem to draw evident direction to conduct the empirical research properly. Hence, Figure 2-6 demonstrates developed a conceptual framework with the concepts explored and identified in this chapter by linked with the research objectives.

Accordingly, Figure 2-6 shows a number of the behavioural factors which are identified in different studies conducted in business and construction sectors (see Table 2-3) which impact the performance of collaboration strategy. The areas that require empirical exploration are also determined within the framework and translated into achievable objectives. Railway sector must follow certain actions along and concerned human behaviours while planning to implement strategic alliances. Studies in section 1.2 were shown research gaps and barriers related to the research phenomenon. Thus, the first and second objective seeks to explore and understand the concept of strategic alliances in the UK railway sector. Further, the framework shows the impact of behavioural factors on the performance of SRAs. and main motivations and benefits leads to implementing SRAs. Thus, the third and fourth objectives are targeting to identify the main motivations and benefits lead to implement strategic railway alliances which are illustrated within the conceptual framework, also identify and evaluate the behavioural factors that impact the performance of SRAs in the UK. finally, the framework links how the research gap is related to the ultimate outcome of the research. Based on this, the fifth objective is designed to develop a strategic guideline and final framework for enhancing the performance of SRAs in the UK.





**Figure 2-6 The Conceptual Framework for Strategic Railway Alliances in the UK**

The main idea behind the formulation of this conceptual framework is to demonstrate the mechanisms for establishing SRAs, with the process beginning with the presence of motivations and needs for creating this strategy, in order to obtain the benefits from experienced partners. During the establishment of SRAs and the alignment of partners from different backgrounds with a variety of human behaviours, the process of the alliance will be affected, either positively or negatively by these characteristics. These impacts will be reflected directly in the process of SRA implementation and the achievement of planned goals. As SRA performance is related to a partner's behaviours and the capacity or capability to deal with potential problems. Whilst, the success or failure of an alliances' goals (performance indicators) is a sign to determine whether there are any benefits gained from the alliance as future motivation for establishing another SA.

## 2.14 Chapter Summary and the Link

To summarise the literature review chapter, many of key research areas have identified relating to this study through reviewing comprehensive literature. Through the literature, the majority of knowledge domains which are related to the phenomenon under investigation were presented such as construction industry and railway sector in general, the importance of collaboration strategies for railway sector, for

railway sector, the important the definition of concepts of the collaboration strategies, the definition of SAs, the main theories related to adopting SA. Furthermore, this research presents the mechanism of the strategic alliance's management, strategic alliances life-cycle and strategic alliances performance measures. The key Behavioural factors that impact SRAs performance presented intensively within this chapter. Subsequently, this chapter concentrates on exploring collaborations in the UK railway context, the need for implementing a collaboration strategy in this sector. Finally, the chapter explains the gaps discussed in Chapter 1 and the conceptual framework orientating to the empirical research. The next chapter demonstrates the methodology adopted to conduct this research empirically.

## **Chapter 3 Research Methodology**

### **3.1 Introduction**

In Chapter 2, it was noted that all details and key elements that relevant for this research were provided clearly. The importance of this chapter is establishing and justifying the methods that are selected for the current research. This chapter commences with the methodological model based on which all sections are structures. Furthermore, research philosophy, research approach, research choices, research strategies, selecting case study and case study design, time horizon, data collection techniques, sampling in research, data analysis procedures, reliability and validity procedures that were employed are discussed and explained deeply.

### **3.2 Research Model**

A research model has been described as a common plan and an overall view of the research methodology (Saunders et al., 2009, Saunders et al. 2016) . To determine the research methodology, it is necessary to consider the layers of associated knowledge, which should be explored by a philosophical review. Hence, an exploration of the underpinning philosophical assumptions is conducted through the lenses of known paradigms; this will help the researcher to select the research strategies to implement the research. Furthermore, Holden and Lynch (2004) explain that philosophical assumptions could have a dual impact on the researcher. Firstly, it could open the researchers' minds to other priorities, thereby enriching their own research capabilities. Secondly, it could support their belief in the suitability of their methodology, thus enhancing their confidence in the research outcome. The following sections describe two research models, with the aim of selecting that best suited to this research and explaining the reasons for this choice.

#### **3.2.1 Nested Model**

According to Kagioglou et al. (2000, p. 143) a nested model has three layers (see Figure 3-1 below), and provides the researcher with 'an interactive portfolio of approach and techniques that benefited from meta-level direction and cohesion'. The nested model offers a thorough framework for the research processes that allows the researcher to systematically check each layer. The layers of the nested model are concentrated by the research philosophy in the outer layer, which is then followed by the research approaches, and research techniques in the middle circle. In design of this model, the research approaches

(for example, a case study, action research or a survey) indicate the methods to generate and test theory. In comparison, the research techniques indicate the data collection methods, such as observation, questionnaires, interviews or focus groups (Keraminiyage, 2009).

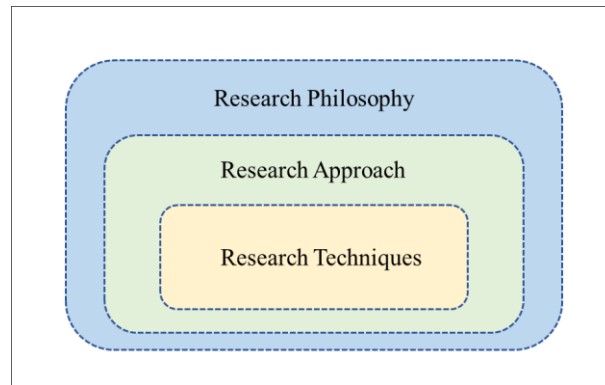


Figure 3-1 Nested Research Methodology Approach (Kagioglou et al., 2000)

### 3.2.2 Onion Model

The Research Onion model was developed by Saunders et al. (2016), and has six layers. It starts by determining the research philosophy, research approach then followed by the research strategy, research choice, time horizons and the techniques of collecting and analysing the data. An example of this can be seen in Figure 3-2.

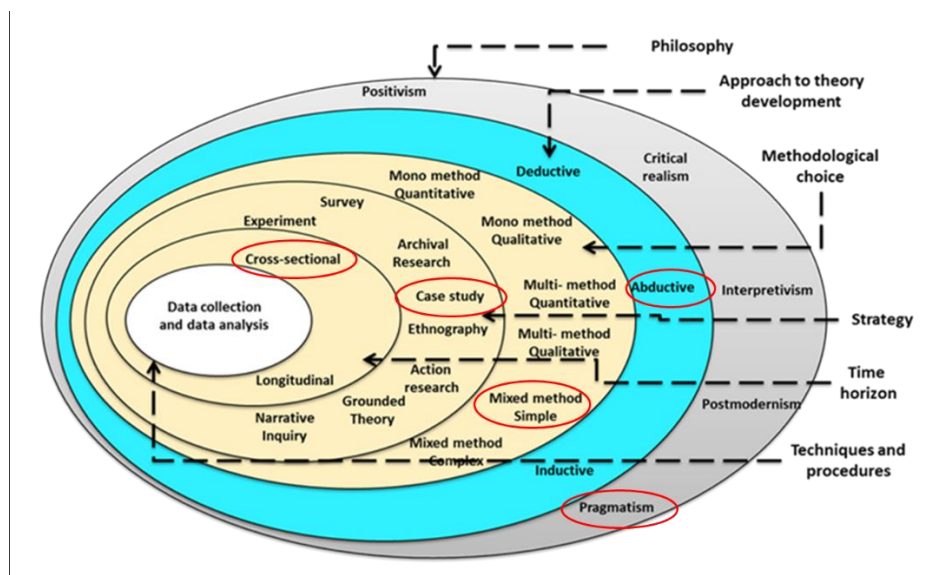


Figure 3-2 Saunders' Research Onion Model (Saunders et al., 2016)

For this research, the 'Research Onion Model' has been adopted to inform the direction of the methodology. It has been chosen for the following reasons; firstly, when comparing the Research Onion with the Nested Model, it can be seen that the latter offers a clear and complete picture of the research

processes. Secondly, it provides the researcher more freedom to comprehensively clarify each step. Finally, it provides a logical sequence that directs the researcher towards completing the process step by step.

### **3.3 Research Philosophy**

It is important to understand that the research philosophy contains essential assumptions about the researcher's views. According to Saunders et al. (2012), a research philosophy is considered an overarching term dependent on the researcher's way of thinking about knowledge. In addition, it considers how knowledge can be created or developed and how people obtain an understanding of the world around or within them. The researcher therefore needs to maintain an open mind to consider facts connected to both new and existing ambiguities. Understanding philosophical assumptions helps a researcher to select an appropriate research strategy and design, and to identify appropriate research methods, and techniques. Saunders et al. (2009) state that the research philosophy relates to the improvement and nature of knowledge.

However, in order to more accurately understand their study, Easterby-Smith et al. (2008) advised that researchers:

- Explain the research design.
- Realise which design will operate and which one will not.
- Determine, and even generate, a design that might be outside the researcher's previous experience.

Philosophical assumptions help a researcher to understand and explain their methodology by encouraging them to describe the whole research process. These assumptions explain the implied principles and rules of inquiry, compromising positions, generic processes or the stance used for any research (Saunders et al., 2012). Crotty (2003) states that the philosophical stance adopted by the researcher informs the epistemological, ontological and axiological stances. Therefore, relationships exist between philosophy, approach, strategy and methods, which inform the researcher's view of the problem.

In order to comprehend and identify research philosophy, Easterby-Smith et al., (2012) stated that ontology, epistemology and axiology are forming the core of the research philosophy. In contrast, Saunders et al., (2016) viewed that the location of ontology, epistemology and axiology is located outside and closely around the research onion model. However, Collis and Hussey (2009) asserted that the researcher is often confronted by a variety of terms that are describing the research philosophy, due to

terms that are employed in the research's literature being discerned as possessing different meanings and disciplines. In order to help explain a research methodology, the research philosophy of this research has been designed to follow Saunders et al. (2016) which is represented in the 'Research Onion' model, see Figure 3-2. The importance of the research philosophy assumptions includes supporting case study selection and methods. The philosophical approach strongly influences the reasoning behind conducting the research and, the data collection, therefore, data analysis. Thus, Saunders et al., (2016), Collis and Hussey, (2013) believed that ontology, epistemology and axiology are considered as the major assumptions related to the research philosophy. Accordingly, the combination of these assumptions along with the integrated set of continuum determines the philosophical position for the researcher.

### 3.3.1 Ontology

The first facet of philosophy is ontology which relates to the researcher's view of the nature of reality (Saunders et al., 2009, Pathirage et al., 2008). It includes all the questions generated by the researcher about the way in which the world works, and the commitment they hold to specific views. However, the researcher can investigate and analyse the nature of the world. According to Saunders et al., (2009), Collis and Hussey, (2013) ontology has two extreme views, *objectivism and subjectivism*. The *objectivist* stance considers that realities in the world are external to the researcher's mind; thus, objectivism explains that the social phenomena used in everyday life has an existence that is separate or independent from actors (Bryman and Bell, 2007). Thus, in terms of organisations, the social entity in question is considered to exclude the actor and have a tangible reality of its own. It has the characteristics of an object and hence has an objective reality. On the other hand, the *subjectivist* stance states that reality is socially constructed and only understood by testing the perception of human actors. Hatch and Cunliffe (2006) demonstrate that all the questions that arise in a researcher's mind concern their constructed stance and relate to a reality that exists through the experience of it.

According to Johnson and Duberley (2000), ontological assumptions relate to a body of knowledge, which includes two aspects, *realism and idealism*. Sexton (2007) defines *realism* as an experienced external reality with a predetermined nature and structure. In contrast, *idealism* is defined as an unknown reality that is comprehended in diverse ways by actors. Thus, ontology represents our point of view on the nature of reality, whether it is an objectivist reality that actually exists, or a constructivist reality that is created in our minds (Flowers, 2009). Therefore, the ontological stance can be classified into two differing positions: *objectivism (realism)* and *subjectivism (idealism)*.

### 3.3.2 Epistemology

The second facet of philosophy is epistemology, meaning the study of knowledge and knowing. Saunders et al. (2009) suggest that it is an expression of the researcher's view regarding the original creation and diffusion of what represents acceptable knowledge in a particular area of research. It provides a philosophical foundation for deciding what more effective knowledge is possible and how the researcher can ensure that their focus is adequate and legitimate (Crotty, 2003). Thus, it deals with the nature of knowledge, or 'how we can know, what we can know, why we know it, is what we know true, and what are the limits of knowledge' (Saunders et al., 2012). An epistemological stance includes the examination of relationships between the researcher and the researched (Jaya, 2014, Collis and Hussey, 2013). Sutrisna, (2009) implies that an epistemological stance is a theory of knowledge related to its methods and validation that facilitates the acquisition of knowledge in an assumed reality. According to Saunders et al. (2009) an epistemological research philosophy can be classified as *positivist*, *interpretivist* or *pragmatist*.

*Positivism* is represented by objects that are deemed to be real, and have their own existence other than the one known by the researcher (Saunders et al., 2009). *Positivism* argues for the use of theory to improve hypotheses that will be examined and approved, and lead to the development of further theory. Therefore, this explanation might generate links among a number of variables within the subject and relate them to a specific theory (Neville, 2007). A positivism stance is typically an essential characteristic of scientific methods, because all theories must be examined against observations of the natural world, rather than rely on reasoning, intuition or revelation. Therefore, positivism relates to empiricism, as it considers evidence from the philosophy of science, meaning evidence discovered via experiments (Crotty, 2003).

An *interpretivism* approach denotes an understanding of the differences among humans as social actors when conducting research between people rather than objects (Saunders et al., 2009). In addition, it includes the researcher's views with regard to the approach of the social sciences, its institutions, staff, organisations and cultures, meaning it is substantially different from the subject of the natural sciences. Accordingly, research that reflects an interpretivist approach places greater emphasis on enhancing the development of socially constructed knowledge. This is supported by the notion that human actions are usually determined by their own perceptions, choices and ability to control these actions (Sexton, 2007). This perspective assumes that people are much more likely to influence events and act in unpredictable ways. In addition, the interpretivist approach tends to use qualitative patterns to induct and comprehend experience in a specific context. Table 3-1 summarises and compares the differences between the two main paradigms positivism and interpretivism.

**Table 3-1 A Comparison between Positivism and Interpretivism Paradigms (Collis and Hussey, 2013)**

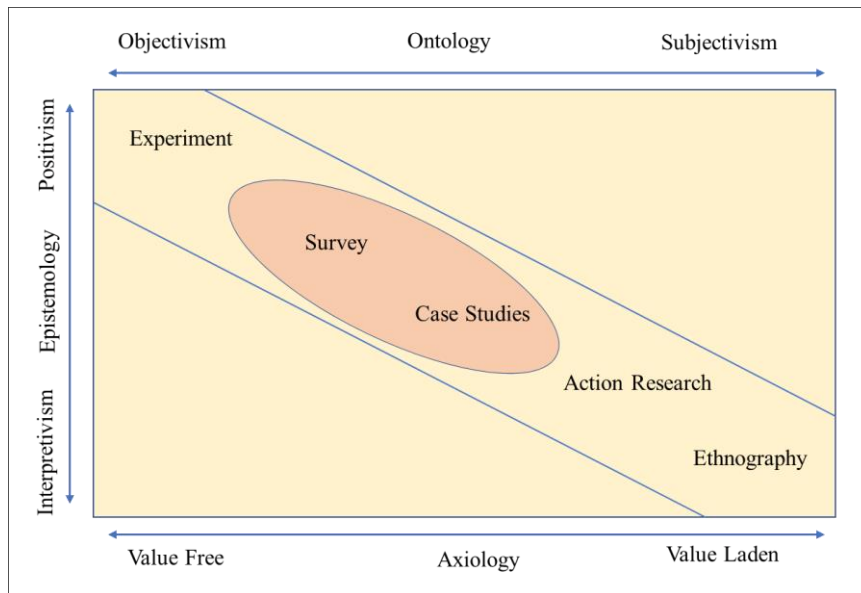
<b>Positivism (Quantitative) target to:</b>	<b>Interpretivism (Qualitative) target to:</b>
Utilise large sample	Utilise small sample
Testing hypotheses	Establishing theories
Objectivism, accurate, use quantitative data	Subjectivism, rich, use qualitative data
Outcomes being high reliability with low validity	Outcomes being low reliability with high validity
Findings can be generalised from the sample to the population	Findings can be generalised from one case to other similar cases.

The third epistemological consideration is *pragmatism*. According to Saunders et al. (2016), when a researcher is not fully engaged or does not reflect any philosophical stance when answering the research question/s and objectives, but are typically taking steps to fulfil particular targets, the researcher is considered a pragmatist. A pragmatic researcher tends to use a mixture of data collection techniques and adopts a range of philosophical stances without prioritising a compliance with particular school of thought. Instead, their main target is to accomplish the research objectives (Teddlie and Tashakkori, 2010). Therefore, combining a variety of approaches create different views of the world, which can enhance a researcher's capability to comprehend the research problem from different angles (Hitchcock, 2017).

### **3.3.3 Axiology**

Axiology is the third facet of philosophy that researchers need to consider, and is derived from the Greek word *axios*, which means (value or worth). Axiology importantly influences all steps of the research process (Saunders et al., 2016). Here, the classification of axiology can be based on whether a reality is value free or value driven (Pathirage et al., 2005). A researcher articulates their axiological position when classifying value as a foundation for making judgments on the research being conducted. The strategies are appointed by adopting an appropriate methodology, which can enable answers to the research question/s and help meet the objectives (Heron, 1996). An understanding of this facet can improve the research methodology because it prescribes the position and role of the researcher, who brings implicit values, experience and beliefs to the research (Sexton, 2007, Easterby-Smith et al., 2008). *Value free research* supposes that a study is independently associated to the data and therefore becomes objective. In contrast, *value laden research*, means the researcher cannot be isolated from the study which therefore becomes subjective (Jaya, 2014). Figure 3-3 demonstrates the philosophical directions in research, which also explains the axiological assumptions. These are formed congruously between the ontological and epistemological positions, and inform an understanding of the acceptable standards and requirements of an appropriate research approach and technique (Sexton, 2007).





**Figure 3-3 Philosophical Directions in Research (Sexton, 2007)**

### 3.3.4 Philosophical Stance of the Research and Justification

Based on the explanation of the concepts and features of the research philosophies and their uses, this research has adopted a pragmatic approach due to the associated benefits. Creswell (2014) offers important reasons for selecting this philosophical position, as outlined below:

1. Pragmatism is not devoted to any philosophical stance and can, therefore, be used to apply a mixed-method design, where it concentrates on answering the ‘what’ and ‘how’ research questions;
2. Pragmatism allows freedom by enabling the researcher to select an appropriate choice and to answer the research questions by using multiple methods and data collection techniques;
3. No complete unit exists within the philosophical continuum of pragmatism. Although it sustains a single approach, it accepts using several techniques for data collection and analysis;
4. Pragmatism, therefore, offers for researcher significant opportunities to employ different types of method and assumptions.

Therefore, establishing the philosophical stance based on its underlying assumptions such as ontology, epistemology and axiology is important, which they provide the main basis for generating own philosophical stance for the researcher.

In terms of *Ontological Assumption*, the researcher in between the two paradigms by adopting pragmatism research, which means intersubjective (subjectivism and objectivism). In this research, the researcher seeks to develop a strategic guideline and framework by evaluating the impact of behavioural

factors on the performance of SRAs. Therefore, the reality of the pragmatism is external and multiple at the same time, thereby, a researcher selects the optimal view which can serve the research purposes. Without selecting either an objectivism or subjectivism paradigm because the reality of the research is that it does not totally externally exist, and it is not completely constructed. The belief of the researcher is through the realisation of a few existing predetermined paradigms, which seek to deal with the perceptions of actors, thereby this research is considered as intersubjective within the real nature of research. This assumption of reality allows for the pragmatic researcher to freely switch between the views of external reality and the constructed reality of perceptions of the social actors' mindsets and thus open the door to adopt between quantitative and qualitative research methods and approaches. Examining the perceptions of social actors by the pragmatic researcher will provide a deeper understanding of the context, which can be generating the reality and enable the researcher to develop a new theory or establish massive developments in the present context. When the theory is evolved the pragmatic researcher can switch smoothly to the one reality stance which can test the developed theory through qualitative or quantitative research based on the purpose. In this vein, the pragmatic researcher seeks the truth and this truth represents "what works". Thus, the aim of the pragmatic researcher through using qualitative and quantitative methods is not constructing reality as a unique interpretation of the research but explore the reality by investigation the social actors' perceptions. Therefore, the reality cycle of pragmatism researches supports using both the sequential and parallel mixed-method research.

While *Epistemological Assumption*, as earlier discussed that this research aims to develop a framework by evaluating the impact of the behavioural factors on the performance of SRAs. Accordingly, the pragmatic researchers who are using qualitative and quantitative researches deal with all sources of knowledge (observable and unobservable) at the same time. In fact, and based on the reality cycle stance, the pragmatic researcher accepts both the presence of one reality and the significance of social actors' perceptions of current reality. In this sense, the both-faced knowledge stance establishes a positive link among the assumptions of the ontological and epistemological pragmatic. Thus, pragmatist researcher freely able to switch and accept observable and unobservable knowledge based on the fact of reality cycle of the ontological stance (switch between objective and subjective). By not selecting an extreme positivist view because the belief of the researcher is that there are a few predetermined paradigms, that can be used in different contexts to understand the world (a social world, that exists externally), which have helped to provide a simple introductory to develop a conceptual framework and start exploring the phenomenon under study. Also, although this research is exploratory in nature, it does not lie within an extreme interpretivist view. As this research deals with the perceptions of social actors' and their attitudes, with the philosophical stance of this research being in the middle of an epistemological continuum. The aim being

to evaluate observable and unobservable knowledge, that enhances the capability of the researcher to develop and refine a conceptual framework, by switching between both the reality of ontological objectivism and subjectivism, achieved through conducting mixed-methods research. Therefore, this fact is compatible with the notion “what works” that is raised from the epistemological and methodological assumptions.

Regarding *Axiological Assumption*, this research utilises the concept of SAs as a basis for the research to develop a new strategic guideline and framework for SRAs by exploring the impact of the behavioural factors on the performance of SRAs. Therefore, this research generally leans, axiologically, towards decision are value-laden. Furthermore, the subjectivism and objectivism data gained in the research are a mixture between value-free and value-laden, but as mentioned by Saunders et al., (2012), Ma, (2012) that it is impossible to be pragmatic researchers completely free of their own values and experiences. Thus, the personal beliefs of the researcher should affect how the objectivism and subjectivism data are perceived, which means being interacted with the actors' personal beliefs either. However, the researcher seeks to evaluate the impact of the behavioural factors on the performance of SRAs to develop a new strategic guideline and framework. In this point, the researcher, axiologically, believes that the research outcomes should be tested in order to provide a fundamental outcome based on his initial belief. Thereby, even though this research pragmatism but axiologically, this research stance leans mostly towards value-laden. Table 3-2 shows the characteristics of choosing pragmatism position for this research.

**Table 3-2 Characteristics of the Pragmatism Philosophy (Saunders et al., 2016)**

<b>Research philosophies</b>	<b>Ontology (nature of reality or being)</b>	<b>Epistemology (what constitutes acceptable knowledge)</b>	<b>Axiology (role of values)</b>	<b>Typical methods</b>
<b>Pragmatism</b>	Complex, rich, External  'Reality' is the practical consequences of ideas  Flux of processes, experiences and practices	Practical meaning of knowledge in specific contexts  'True' theories and knowledge is those that enable successful action  Focus on problems, practices and relevance Problem solving and informed future practice as contribution	Value-driven research  research initiated and sustained by researcher's doubts and beliefs  Researcher reflexive	Following research problem and research question  Range of methods: mixed, multiple, qualitative, quantitative, action research  Emphasis on practical solutions and outcomes

Figure 3-4 illustrates the philosophical stance of this research relating to the research philosophies continuum explained in the table earlier.

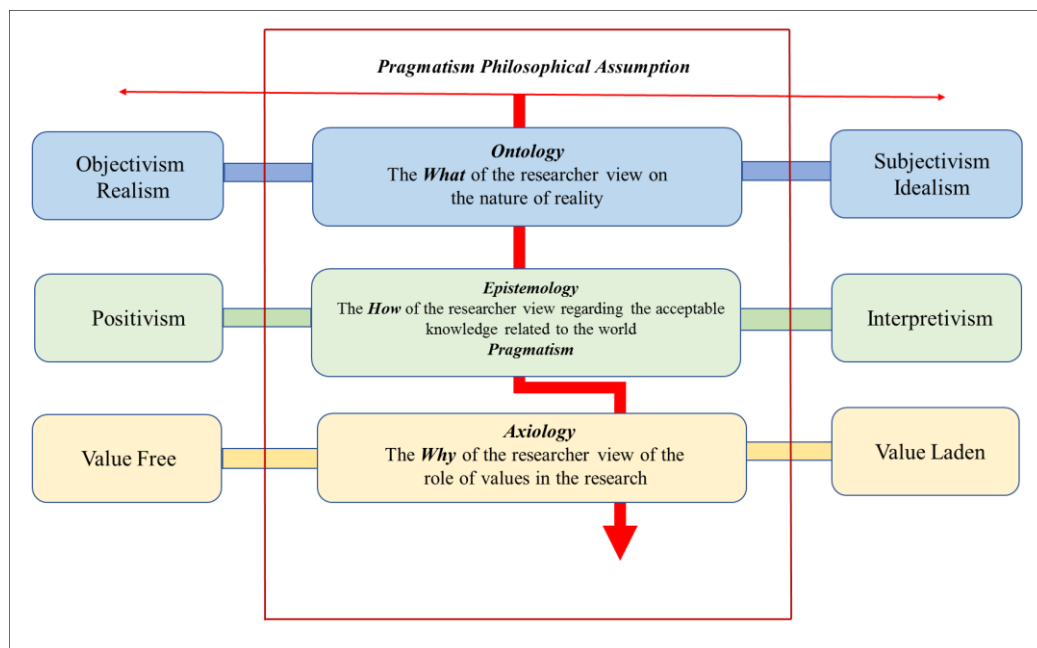


Figure 3-4 Research Philosophy Stance

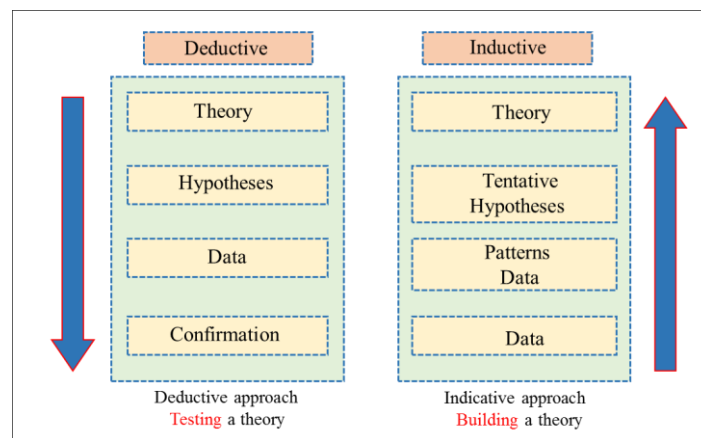
### 3.4 Research Approach

According to Saunders et al. (2009) selecting the right research approach is important for two reasons: firstly, it helps the researcher to answer the specific research question/s, and secondly it fulfills the study's objectives. A researcher needs to specify which approach is the most appropriate to answer the research question/s. Hence, the researcher might be able to determine the choices regarding the research design, strategies and data collection techniques, taking into account the practicalities of carrying out the study (Easterby-Smith et al., 2008). Generally, it can be said that research approaches consist of the following three types: *deductive*, *inductive*, and *abductive* (Saunders et al., 2016).

The *deductive approach* is a theory and tests hypotheses; thus, a research strategy should be designed to examine a hypothesis, after which the principle is approved, disconfirmed or adjusted. The hypothesis is expressed as an assertion about two or more variables and the relationship among them. Hence, the fundamental step would be to identify a number of variables for examination through practical observations (Gray, 2004, Thomas, 2006).

Conversely, an *inductive approach* is relevant to the data collection and develops theory as a result of the data analysis (Thomas, 2006). The inductive approach is more likely to be involved with the context in which events take place. Thus, a small study sample may be more suitable than the large ones associated

with the deductive approach (Saunders et al., 2009). According to Blackstone (2016) The different steps associated with both inductive and deductive approaches to research are illustrated in Figure 3-5.



**Figure 3-5 Differences between Inductive and Deductive Approaches (Blackstone, 2016)**

However, Saunders et al. (2016) confirm that a third approach that combines both the deductive and inductive approaches; this is known as an ‘*abductive*’ approach. The abductive approach is used in this research, as it neither goes from theory to data, nor from data to theory; instead, it moves back and forth and goes deeper than the other two approaches alone. Notably, the reason behind selecting this approach is to gain an understanding of the underlying patterns of the impact of behavioural factors on the performance of SRAs in different alliances levels, and evaluating the complex interaction of people experiences regarding the impact of these factors as well as completing display of the real situation in order to establish a strategic guideline able to implement and deliver SRAs successfully. Table 3-3 illustrates the major differences between deductive, inductive and abductive approaches.

**Table 3-3 Deduction, Induction and Abduction: Process of using these Approaches within the Research**

Process	Deduction	Induction	Abduction
<b>Research logic</b>	When the premises are true, the conclusion must also be true	Known premises are used to generate untested conclusion	Known premises are used to generate testable conclusions
<b>Generalisation</b>	Generalising from the general to the specific	Generalising from the specific to the general	Generalising from the interactions between the specific and the general
<b>Use of data collection</b>	Data collection is used to evaluate hypotheses relating to an existing theory	Data collection is used to explore a phenomenon, identify themes and create a conceptual framework	Data collection is used to explore a phenomenon, identify themes, locate these in a conceptual framework and test the results through subsequent data collection
<b>Building the theory</b>	Theory falsification or verification	Theory generation and building	Theory generation or modification, using existing theory where appropriate, to build a new or modify existing theory

### **3.4.1 Justification of Selected Research Approach**

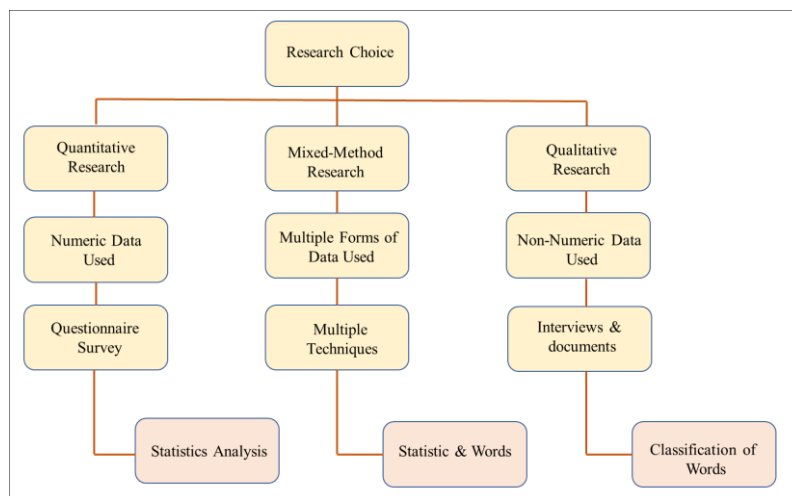
This exploratory research seeks to create a strategic guideline and a framework for SRAs to fundamentally evaluate the impact of behavioural factors on the performance of SRAs. A literature review was useful to comprehend the important concepts of alliances and to recognise the existing motivations and benefits of strategic alliances, including behavioural factors, in order to select an appropriate methodological design to address the purpose of this research. This stage provided a comprehensive understanding of the theories around the research questions, and thereafter guided these questions towards suitable data collection instruments.

This research is the first study of this subject specifically on the railway sector in the UK. Due to the scarcity of existing research, this study aims to create a strategic guideline and a framework of evaluating behavioural factors that impact the performance of SRAs. Moreover, since this research is exploratory in nature, the first stage uses a deductive approach by critically reviewing the theory of SAs and building considerations and ideas related to the impact of behavioural factors on performance, this will then facilitate the design of a conceptual framework. With the intention of building a conceptual framework being to gain an intensive understanding of key motivations and benefits of SRAs and to identify the main behavioural factors, that impact on performance. Whilst, within the second stage of conducting this research, an inductive approach is used. The importance of this stage is to explore the concept of SAs and their motivations, benefits and behavioural factors in a real context. This stage is fundamental to confirming the considerations that are created within the deductive stage and the critical review of theory. Thus, enabling the conceptual framework to be refined through emerging knowledge of the real phenomenon and contributing to existing knowledge and theory. This also aims to enable the development of a precise set of guidelines that intends to enhance knowledge creation and the management of SAs in the railway sector specifically and in businesses generally. Accordingly, at this stage, the inductive approach was used. The use of abduction through the adaption of both inductive and deductive approaches, was suitable since the nature of this research is exploratory; thus, the data collection, examination and re-examination determine the findings of this research. Employing both approaches empowered the capability of the researcher to address the weaknesses and gaps of each approach. The next section considers the research choices.

### **3.5 Research Choices**

The research methodological choice is the third layer in the Research Onion model. This layer considers the concrete step of the research structure where the methodological choice involves selecting either or

both qualitative and quantitative methods. Each choice consists of a research strategy and data collection techniques, as is shown in Figure 3-6.



**Figure 3-6 Research Choice**

According to Figure 3-6, quantitative research implies quantity and therefore considers numeric data or forms of numbers. These are collected tactically by using specific tools, such as a questionnaire surveys, and analysed statistically, typically via SPSS software. In comparison, qualitative research considers non-numeric data by collecting words, videos, documents and images. This is often collected by interview, which is analysed non-numerically. Furthermore, mixed-method research is a combination of both quantitative and qualitative approaches, as is illustrated in Figure 3-6. Although adopting mixed-method research can consume a lot of time, it empowers the researcher to acquire multiple forms of data by using more than one data collection tools; this helps to overcome the weaknesses associated with the use of a single method.

### 3.5.1 Justification of Research Choice

As this research used more than one data collection technique, multiple analysis procedures have been adopted. Generally, social science studies tend to adopt mixed method approaches, which can begin with an assumption to investigate and takes steps to understand a social phenomenon by collecting the evidence (Creswell et al., 2011). Due to the complexity involved with evaluating and exploring the behavioural factors that impact SRAs performance in the UK, and in order to understand the actual situation influencing the phenomenon, a single approach is not adequate. Furthermore, using one single technique could lead to bias. Therefore, a better understanding of the phenomenon would be sustained by mixed-method research. Thus, applying both qualitative and quantitative approaches in this research would be

worthwhile because of the findings of one method enable to clarify the results that emerge from the use of the other approach.

### 3.5.2 Mixed Methods

Selecting an appropriate strategy is an essential priority to achieve the research aim and objectives. A typical research strategy will encourage a researcher to explore and investigate the nature of what is being studied. The research aim demands an in-depth, specific investigation regarding real-life, human behaviours and complex perspectives, in order to develop a set of guidelines to support and increase the understanding of behavioural factors that impact the performance of railway alliances in the UK. Therefore, mixed-method adopted a sequential mixed method that can respond to the limitations of both primary approaches, namely qualitative and quantitative.

In general, mixed-method research aims to investigate and comprehend social worlds, by collecting a range of evidence. Hence, mixed-method research is not just considered a routine procedure within postgraduate research, as the evidence demonstrates that this approach is much more widely accepted and applied, and therefore, its effectiveness needs careful consideration (Creswell et al. 2011). This method can be defined as the integration of qualitative and quantitative methods to absorb true information both at breadth and in-depth, within single or across multiple cases (Teddlie and Yu, 2007). The combination of these two approaches helps to increase the data strengths and decrease the weaknesses of each data type (Creswell et al., 2011). Therefore, a mixed-method approach is perceived as beneficial because it uses more than one method, allowing researchers to obtain worthwhile information on different aspects of the topic being studied (Giddings and Grant, 2006).

According to Creswell (2014) a mixed-methods approach represents interactions, priorities, timings and the mixing of the data collected. Four types of mixed methods are provided, including: *convergent parallel*, *explanatory sequential*, *exploratory sequential* and *embedded design*. This research adopts the *exploratory sequential*, which begins with the qualitative data collection and analysis. This is followed by the quantitative data collection and analysis. This process aims to build on the findings analysed within the first (qualitative) stage. Therefore, by connecting the qualitative data analysis and the quantitative data collection, the methods are mixed. Importantly, the purpose of this method is to use quantitative data and its results, to support the interpretation of the qualitative outcomes. This method is suitable for explaining and interpreting relationships, as its main focus is to initially explore a phenomenon (Creswell, 2009). Furthermore, it is appropriate to utilise testing factors, which have emerged from the results of the qualitative stage; these are important in generalising from the qualitative results to different samples.



Moreover, the purpose of choosing this research approach is to determine the distribution of a phenomenon within a selected population. Therefore, a sequential exploratory research is appropriate when a researcher is required to develop a strategy or framework, and when individual instruments alone are found to be inadequate or unavailable (Clark and Creswell, 2011).

This research uses a qualitative data collection technique by conducting semi-structured interviews with AMT in the Northern Hub Alliance (NHA) in the UK. These interviews are analysed by Nvivo software. In comparison, the quantitative data collection technique was conducted by questionnaire and aimed to examine the responses and opinions of departments and operational levels in the alliance. SPSS software used to manage the quantitative data analysis procedures.

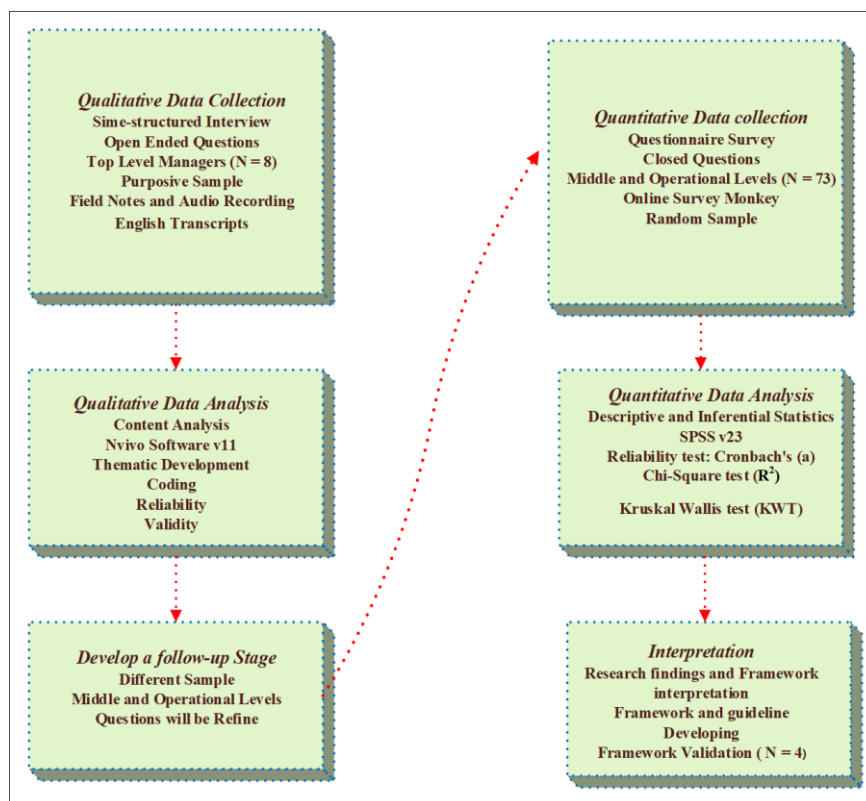


Figure 3-7 The Sequential Exploratory Design Flowchart of the Study

### 3.6 Research Strategy

Saunders et al. (2012, p. 173) propose that a research strategy is a ‘plan of action to achieve a goal a plan of how a researcher will go about answering the research questions.’ This stage has various strategies that support the progress of research, while also maintaining congruence within the foundations of the study. Therefore, the choice of research strategy must be inspired by the researcher’s philosophical stance and approach (Bryman and Bell, 2007). Indeed, the research question/s, objectives, amount of time available, existing knowledge, other available resources, and the philosophical underpinnings inform the choice of

research strategy. To translate the aim of a study into accomplishable results, Yin, (2014), Saunders et al., (2009) provide a ‘roadmap’ or ‘plan of action’ for researchers. According to Saunders et al. (2016) a research strategy is critical as it helps the researcher to answer the research question/s and fulfill the research objectives. Moreover, Yin (2014) explains three important conditions when selecting an appropriate research strategy:

- a. The type of research question/s;
- b. The capability of the researcher to control behavioural events;
- c. The capability of focusing on contemporary rather than historical events.

Many suitable strategies are associated with the qualitative approach, such as case studies and action research, grounded theory and archival research (Saunders et al., 2009). A quantitative approach, on the other hand, tends to adopt experiments and surveys (Creswell, 2009). Consequently choosing the right strategy is one of the most significant issues for a researcher (Saunders, 2011). Therefore, at this stage it would be more suitable to identify the purpose of the study before outlining an in-depth research strategy.

### **3.6.1 The Research Purposes**

According to Neuman (2002), the research purpose is classified into three branches: *exploratory*, *explanatory* and *descriptive*. Exploratory research means a case where the research objectives try to draw attention to the issues of the phenomenon under scrutiny. It is also utilised to gain evidence to answer research question/s, such as ‘what’. Conversely, descriptive research attempts to describe the nature of the phenomenon under study. Hence, it is suitable before engaging in exploratory research. On the other hand, explanatory research means it aims to clarify an issue. It concentrates on observing the phenomena, which means clarifying the association among the research variables. Nevertheless, research objectives can combine these categories, subject to the study inquiry and research aim (Saunders et al., 2016). In this research, the main purpose is that of exploratory, which means starting with a qualitative approach (interviews techniques) to collect rich data regarding the main behavioural factors that impact SRAs performances in the UK.

### **3.6.2 Types of the Research Strategies**

According to Saunders et al., (2016), Yin, (2014), a research strategy is classified into seven categories. The researcher should select an appropriate strategy, which answers the research question/s posed at the start of the research. Table 3-4 describes the research strategies available and considers the different types of research question/s involved, amongst other research requirements.

**Table 3-4 Comparison of various Research Strategies adopted from (Abdul Nifa, 2013, p. 107)**

<b>Research strategies</b>	<b>Advantages</b>	<b>Disadvantages</b>	<b>Form of research question</b>	<b>Requires control of behavioral events?</b>	<b>Focuses on contemporary event?</b>
<b>Experiment</b>	Clear possibility and answer; controlled context, replicable and generable; save time and resources; causal relationship	Requires specific knowledge; artificial; ethical problems due to variable control; quantitative does not really explain	How why	Yes	Yes
<b>Survey</b>	Widely used; qualitative and quantitative; directive; affordability of large data; high predictability	Risk of misplacing findings; difficult to obtain truthful data, may be subject to bias; less detail and depth; may not be applicable to phenomenon studies	Who What Where How How many How much	No	Yes
<b>Case study</b>	In-depth, capture complexities, relationships; multiple data sources and methods; flexible time and space less artificial	Problem of generalization; focus on natural situation; unpredictable for some courses	How Why	No	Yes
<b>Action research</b>	Collaborative; the researchers and context integrity; and context integrity; for practitioner research; professional and personal development; practical	Difficult for new researcher; exclusive; work setting influence; unacceptable for some course	How	Yes	Yes
<b>Grounded theory</b>	Generating theory from a research; flexible structure; detailed set of rules and procedures	Too specific; ignore the previous knowledge to the analysis; many variants of the strategy	How (focus on process)	No	Yes
<b>Ethnography</b>	Feasible within the constraint of time and researchers; direct observation; no specific data collection methods; rich data; deal with culture, inclusive	Difficult for new researcher; high skill needed; descriptive to explanative; ethical issues; limited accessibility; problem of generalization	Why (to understand context and perception)	No	No
<b>Archival research</b>	Independent researcher; researcher has no influence on the quality of documents; can be reviewed repeatedly	The documents might be produced for specific reason; lead to bias; irretrievability	Who What Where How many How much	No	Yes/ No
<b>History</b>	Applicable deal with “dead” sources of evidence; can be reviewed repeatedly	The data is limited in terms of in-depth descriptions (no specific reason produced)	How Why	No	No

According to Saunders et al. (2012) choosing an appropriate strategy for any research should be based on the research question/s and objectives, the amount of time and resources that exist, the philosophical foundations and the extent of knowledge available. For this study, the data is collected from social interactions within the Northern Hub Alliance (NHA). Thus, there is no need to control the behavioural events. Also, this research obtained valuable information from these social interactions. Taking into consideration that there is no need to control behavioural events, both action research and an experimental methodological strategy are eliminated from the selection. Moreover, the research concentrated on 'What' and 'How' research questions, which eliminated action research, ethnography, grounded theory, and historical research strategies, which do not answer 'What' research questions. Consequently, as this study obtains in-depth, current information from railway professionals, the most relevant strategy used in this research is the *case study* and *survey*.

### **3.6.3 Selecting Case Study**

According to Yin (2014), case study approach provides the researcher with a chance to observe and analyse a phenomenon. Using a case study as a strategy to conduct a research involves the empirical investigation of a specific contemporary phenomenon within its real-life context by means of multiple sources of evidence (Robson, 2002). In addition, a case study can be considered more suitable for researchers who are undertaking practical work within and on specific organisations and firms (Saunders et al., 2016). According to Dooley (2002), when a researcher is interested in a case study design as a strategic method, they often focus on exploring a particular phenomenon, which is likely to be understood in significant detail. At the same time, they can explore many subjects in more specific detail by focusing on an individual, an organisation, a role, a nation or a context (Gray, 2004). Nevertheless, a case study entails some challenges; for example, it can be time-consuming and require multiple methods or tools to conduct the research. However, the findings may have a positive impact, which could lead to the creation of a new vision and enhance the comprehension of the phenomenon in question (Voss et al., 2002). Moreover, case study research will help to verify research findings, and it is especially helpful in investigating elaborate social phenomenon that occur in a unique context (Yin, 2014). Similarly, Denscombe (2010) confirms that a case study is an appropriate strategy to enable researchers to study a unique phenomenon or a real-life process within its context. Furthermore, a case study is more suitable with a qualitative research approach, although it can also allow for a combination of both quantitative (questionnaires) and qualitative (interviews and documents) methods in order to achieve different aims and to support a variety of purposes. Moreover, a case study strategy does not need a specific type of evidence, and can therefore accommodate quantitative and qualitative approaches, and a combination of

the two (Dooley, 2002). Hence, the researcher is able to select from a wide of range of methods, and the case being studied along with the research question/s, will guide the researcher in their choice (Petty et al., 2012). Yin (2014) states that the ability to deal with a variety of evidence, such as interviews, artefacts, questionnaires, documents and observations, can be considered a unique strength of this approach.

According to Yin (2014), there are three typical conditions used to identify and distinguish a case study from experiments, surveys, archival analysis and historical strategies. These conditions include: the type of research question/s posed; the extent of control an investigator has over behavioural events, and the degree of focus on contemporary, historical events. The following Table 3-5 summarises and compares the most well-known research strategy criteria and these three conditions.

**Table 3-5 Selection Criteria for different Research Strategies(Yin, 2014)**

<b>Strategy</b>	<b>Form of Research Question</b>	<b>Requires Control of Behavioural Events?</b>	<b>Focuses on Contemporary Events?</b>
<i>Experiment</i>	How, why?	Yes	Yes
<i>Survey</i>	Who, what, where, how many, how much?	No	Yes
<i>Archival Analysis</i>	Who, what, where, how many, how much?	No	Yes/ No
<i>History</i>	How, why?	No	No
<i>Case Study</i>	How, why?	No	Yes

According to Saunders et al. (2012), a case study strategy is considered one of the most important strategies; it enables the researcher to challenge an existing theory and helps to provide a valuable source of new research question/s. Moreover, the nature of this strategy is to conduct in-depth observations of one or a small number of departments, organisations, events or individuals throughout a particular period. Accordingly, a case study can be sufficiently flexible to enable the selection of a single or multiple cases (Easterby-Smith et al., 2008). Furthermore, a case study can be used to (Yin, 2009):

1. Explain causes of intervention in a particular context;
2. Describe causalities in actual life;
3. Demonstrate certain topics within a study;
4. Explore situations where interventions happen;
5. Evaluate research.

Consequently, a case study method represents an appropriate strategy for this research, due to its ability to collect data through different methods and provide in-depth knowledge regarding a specific phenomenon.

### 3.6.4 Case Study Design

According to Yin (2014), there are four major types of case study design: *single, multiple, holistic and embedded*. To clarify these types of case study, each design is further qualified as follows:

1. Single case holistic
2. Single case embedded
3. Multiple cases holistic
4. Multiple cases embedded

When comparing single and multiple case study designs, multiple case designs have distinct overall advantages; for example, the evidence that emerges from multiple cases is considered compelling and therefore regarded as robust. On the other hand, multiple cases can require more resources and more time, which may be beyond the remit of a single researcher or independent research investigator (Yin, 2014).

This study has adopted a holistic single case, as it represents a unique or unknown case (Yin, 2014, Gray, 2004). Furthermore, Yin (2009) outlines particular conditions that might justify the use of a single case study design:

1. The case must be critical;
2. The case represents an extreme or unique case;
3. The case must be representative or typical;
4. The case should be revelatory.

There are differences between a holistic and embedded case design, as both refer to their unit of analysis. A holistic design focuses on an organisation as a whole, while an embedded design refers to subunits within an organisation, such as specific departments or sections (Saunders et al., 2016). This research seeks to explore and investigate the behavioural factors that impact SRAs performance in the UK. At this stage, there is no empirical literature on UK railway sector strategic alliances that connect to the phenomenon under study, and there are huge recommendations from the railway clients (see section 1.2) to implement strategic alliances strategy; therefore this represents an opportunity and motivates the researcher to analyse the phenomenon (Saunders et al., 2012).

Hence, this research used a single case, holistic design as it was most likely to be manageable for a single researcher (Saunders et al., 2016). The application of a holistic case study allows for the provision of an appropriate distinction among different departments in an organisation (Zainal, 2007). Furthermore, holistic case studies examine a single case as one unit, whilst Yin (2014) states that a holistic case study

ensures that a general view is obtained as an example of an applied organisational strategy. Additionally, adopting a holistic case study determines when the underlying theory is itself represented as holistic in nature (Yin, 2009). Therefore, this research examined the NHA as a single holistic case study.

### 3.6.5 Characteristics of the Case Study

It was necessary to consider the characteristics of case study and applying a proper justification for the adoption of a single holistic case. There are several approaches to determine the selection of appropriate cases to study. Denscombe (2014) identified two strategies for the selection: random and information-oriented selection. A random selection strategy selects samples randomly from a large sample in order to prevent subjective bias, while information-oriented selection considers the attributes of interest within the population. Yin (2014) offered a critical explanation of the selection criteria for any case study research, stating that each case should be selected in such a way as to produce similar results (literal replication) or contrasting results (*theoretical replication*).

For this study, the researcher realised that there are limited SRAs working in the UK, with diverse experiences of the railway industry by conducting a partnering strategy, and various levels of infrastructure development practice. It was necessary to select a comprehensive design that recognised the nature of the practices involved within railway alliances and the diversity of active projects; this considered the evident similarities and differences and ensured rigour in the design process. Therefore, a random selection case selection strategy was not suitable for a comprehensive design. Instead, the information-oriented selection strategy is more appropriate for this research. Given the previous argument, single case study appeared based on the following criteria:

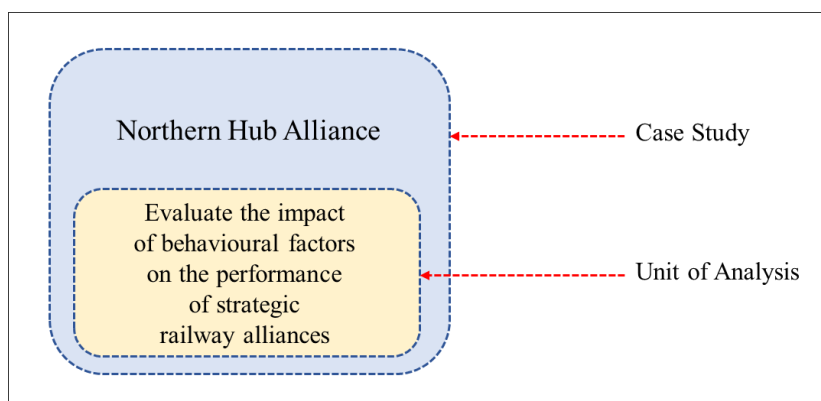
1. **Location:** presence of the alliance within the same region as the researcher; this enables the researcher to maintain interaction with the alliance's team and, in doing so, to obtain a fuller understanding of the nature of their backgrounds and behaviours.
2. **Optimality of the project:** the conduct of such projects (NHA) is scarce and the biggest project in the North of England for decades, as shown in section 4.2, where it links, for the first time in the history, all stations of Manchester city centre railway: Piccadilly, Oxford Road, Deansgate, Salford Central and Victoria (NetworkRail, 2019b).
3. The NHA creates improved north-south the England rail connectivity through the ability to remove all conflicting operational moves to the south of Piccadilly station and allows a number of new rail services to be introduced by designing 3D viaduct which is considered a unique landmark (NetworkRail, 2019c).

4. Requirements for conducting this research consider compatible with NHA such as the multiplicity of participants' background of alliancing companies, diversity of behaviours, variety of specialisations and reputation of companies according to the UK infrastructure classifications.

The discussion of the characteristics of case study selection reveals that a single case study is chosen and considered the most appropriate strategy for this current research. Therefore, according to the above discussion, the alliance examined in this research is the NHA project, explored as a single holistic case study. The next section explains a detailed description of the unit of analysis for the NHA case study.

### 3.6.6 Unit of Analysis

The process of conducting research means targeting a subject, variable or even an entity, which is defined as the unit of analysis. A unit of analysis denotes the main subject under study and is considered an important element in the research design (Yin, 2014). The fundamental point of the unit analysis is that it refers to what or who is being investigated, which could be an individual, group, organisation, industry, or programme (Collis and Hussey, 2013, Saunders et al., 2016). Accordingly, Yin (2014) stated that it is important to determine the context of the case study and what lies in a case topic. Having selected the case study (see section 3.6.3), it is necessary to determine the unit of analysis. The researcher perceives that the evaluation of the impact of the behavioural factors on the performance of SRAs in the UK are fundamental factors affect the performance of alliances in this vital industry which is distinctive design and an ability to improve the national rail networking nationally. Hence, these behavioural factors are identified as the unit of analysis of this research, as shown in Figure 3-8.



**Figure 3-8 Unit of Analysis for Case Study**

The exploration of this phenomenon within a Northern Hub Alliance helped to address the existing gaps in knowledge and help to evaluate the impact of the behavioural factors on the performance of SRAs in the UK. Thus, the process of selecting this unit of analysis depends on the characteristics provided in



section 3.6.5. Moreover, the researcher attempted to determine and enhance the level of understanding of key parties in the UK railway sector particularly with regard to the essential motivations and benefits of creating strategic alliances and the building of a proper process to ensure that organisational behaviours are aligned during the alliance implementation tasks.

### **3.7 Time Horizon**

The time horizon is considered a fundamental aspect of the Research Onion. Saunders et al. (2009) state that all studies should use time horizons as a framework in order to ensure that research projects meet their stated time. Thus, a time horizon has been classified by Saunders et al. (2016) as either cross-sectional or longitudinal. Cross-sectional studies means they are limited to a particular time and phenomenon and utilised to finish a research study within a limited timeframe (Luo and Flick, 2012). In contrast, longitudinal studies concentrate on examining a particular phenomenon and control the changes and development over time; whilst these studies provide a clearer picture of reality, they consume substantially more time (Saunders et al., 2016).

This study does not seek to test changes during the development of a phenomenon through time. Instead, it concentrates on a specific timeline of events, and means that a cross-sectional method is more suitable. This also enables it to meet the requirements of a PhD programme, which stipulate a particular timeframe.

### **3.8 Research Techniques, Procedures and Sources**

This section illustrates the centre of the Research Onion model and includes the data collection and analysis processes. This section explains the main data sources, the qualitative and quantitative data collection techniques and the suitable analysis procedures.

#### **3.8.1 Sources of Data**

The requirement of each study is determined by answering the research question/s and by fulfilling the aim and objectives. Saunders et al. (2016) stress that the major sources of data are considered either primary and secondary. Primary sources refer to data that are collected and analysed first hand by the researcher. Collecting primary data typically depends on the use of pre-determined tools, such as interviews, and questionnaire surveys, whilst, secondary data is considered to be information that was previously collected by others in order to achieve a different purpose, which are then available to the public through publications and documents.

The adoption of a case study strategy offers an opportunity to use data as: multiple primary data sources, multiple secondary data sources, or as a combination of multiple sources of primary and secondary data. Nevertheless, a number of researchers (Creswell, 2014, Saunders et al., 2016, Yin, 2014) assert that there are different data collection methods (discussed in the next section), which are categorised under these two data sources.

### **3.8.2 Data Collection Techniques**

This section elaborates on the final inner layer of the research onion and consists of two significant research processes: data collection and data analysis. Normally, research studies have different sets of requirements depending on the data and information characteristics (Fellows and Liu, 2015). As previously mentioned, the case study method affords the researcher some flexibility in the selection of different data collection techniques. Moreover, Yin (2014) confirms that the six major sources can be considered when using a case study strategy, such as documentation, archival records, interviews, direct observation, participation observation and/or physical artefacts. Thus, adopting a multiple methods approach would benefit the researcher in exploring this subject (Yin, 2014). Furthermore, this research created a case study database and sustained a chain of evidence; the database and records enabled the researcher to meet the purposes of this research through the adoption of a combination of qualitative and quantitative research approaches. Furthermore, the reliability and validity increased by triangulating the methods. Several methods can be used to collect data separately or together. Applying different techniques and methods can identify limitations and understandings; these are considered essential to the fulfillment of the research. Although, there are several data collection techniques, this research used just three elements; a literature review, interviews and questionnaires.

According to McNeill and Chapman (2005), Harris and Brown (2010) semi-structured interviews and structured questionnaires are more often adopted in mixed method research. It is important to generate accurate and trustworthy results, despite differences in the data collection techniques, interpretations and data analysis procedures. Therefore, this research has chosen two data collection techniques (interviews and questionnaires) to collect data from a group of participants. This supports the generation of accurate and trustworthy results, despite differences in the data collection techniques, interpretations and data analysis procedures.

#### **3.8.2.1 Literature Review**

A literature review is defined by Sekaran (2006) as the documentation of a thorough review of published and unpublished research from secondary sources of data, in the specific areas of interest to the researcher.

To achieve the aim of this research, a literature review is first necessary to provide the foundation and explore the key issues; this stage is especially important for the development of an initial conceptual framework. Moreover, a literature review usually tries to avoid reinventing the same issues, which have been conducted in prior research, and ensures that the researcher's knowledge is up-to-date and congruent with the focal area (Kulatunga, 2008). Bryman and Bell (2007) also confirmed the importance of a literature review, stating that it highlights the significance of the research and where it may lead. It should extend beyond the mere repetition of theories and opinions of prior scholars. Whilst, previous theories should be interpreted with the ideas used to support and develop a particular viewpoint.

The literature review for this research helped to address the gap in knowledge on SAs in the UK railway sector through obtaining secondary data. Therefore, various literature on strategic alliances, factors and elements, and existing frameworks were considered in this research. These were considered alongside the current state of strategic alliance implementation in the UK railway sector, in order to ensure accurate and up to date information on the phenomenon under study.

### **3.8.2.2 Interviews**

This section explains the qualitative research (interview) in more detail and describes the meanings of the essential themes in the lives of the subjects. The fundamental motivation of an interview is to understand the meaning of what participants say and to cover both sides of this meaning in terms of level and truth (Steinar, 1996). It is useful to gain the full story behind a participant's experiences, which can provide the interviewer with an opportunity to pursue in-depth information regarding the topic (McNamara, 1999).

According to Bryman and Bell (2007), interview research design can be divided into two types: unstructured and semi-structured. *Unstructured interviews* allow the interviewee to answer freely; thus, the interviewer asks a single question and the interviewee responds, which is then used as a basis for a unstructured discussion. Saunders et al. (2012) assert that unstructured interviews can be defined as informal interviews because they allow the interviewees to answer in their own way and pace.

Whereas, *semi-structured interviews* indicate that the interviewer has a list of essential questions, that represent the general form of an interview schedule; this allows the interviewer to vary the outcome of the questions (Bryman and Bell, 2007), and enables the collection of in-depth information in a systematic way from a group of participants (Seidman, 2006). Yin (2014) outlines three essential characteristics of semi-structured interviews, which distinguishes them from structured interviews:

1. The relationship among the interviewer and interviewee is not accurately scripted;

2. The interviewer does not attempt to adopt a uniform behaviour or attitude for every interview;
3. The interview questions should be open-ended rather than close-ended questions.

The third type of interview is *structured*, when the interviewer asks a group of predetermined standard questions that relate to subjects in a certain order. This method allows interviewees to choose an answer from a set of options. However, clarification on some questions might be needed by the interviewer, so a structured approach is typically utilized in surveys (Saunders et al., 2016).

In comparison, Gillham (2005) states that interviews can be divided into two types: face to face and distance interviews. Also, Neuman (2002) stated that interviews can be classed as pen and paper (PAPI) or computer-assisted personal interviews (CAPI). Face to face interviews see the interviewer and interviewee/s meet in person. This enables the researcher to quickly access valuable information and is particularly useful when observation is also involved. However, the technique can be considered costly and time-consuming. Distance interviews involve an interviewee/s offering information without being present with the interviewer; these can be conducted by telephone, screen or by email. Saunders et al. (2016) state that this technique has disadvantages, as it becomes difficult for the interviewer to build rapport or ensure a proper connection with the interviewee; moreover, it can also be costly for the interviewer and time-consuming, and risky in the face of weak internet or phone connectivity.

### **3.8.2.3 Justification for Adopting Semi-structured Interviews**

After considering the information above, semi-structured interviews have been chosen as the main technique to collect qualitative data; this enabled the gathering of in-depth information from participants in the NHA. This method consists of the characteristics of both unstructured and structured interview methods. Generally, the preparation for semi-structured interviews is fulfilled by setting a formal interview guideline predetermined. Also, the order and wording of questions can be modified when required. Semi-structured interviews give to the interviewer the total freedom to change or omit and add the required questions during the interview meeting progresses (Saunders et al., 2016). Bryman (2015) stated that applying this method allows the researcher to concentrate on the research while giving the participants entire freedom to express their opinions and views regarding the subject matter. The interviews were conducted face-to-face, which was facilitated by the proximity of the researcher and participants. Adopting semi-structured interviews enabled the researcher to build strong and trusting relationships with the interviewees, which encouraged the provision of honest open answers that can improve the validity of the research findings (Gray, 2004). It is more likely that the researcher can obtain

agreement from the managers to conduct semi-structured interviews, particularly when the topic is relevant to their interests. Moreover, conducting semi-structured interviews helps to identify themes and questions that will inform the quantitative stage (Teddlie and Tashakkori, 2009). The demographics of the participants engaged in the interview process and the analysis of the qualitative data will be carried out with the aid of NVivo 10 (Edhlund and McDougall, 2012).

Semi-structured interviews were adopted in this research; participants were selected based on their experience, and position within the NHA specifically, and the railway industry in general. Hence, the targeted sample is purposive, although snowballing was also applied by contacting the head manager of the alliance and securing their authority to access other partners. A draft of the interview schedule used can be found in (see APPENDIX 1).

The data collection approach aimed to explore and refine the framework of the behavioural factors within UK strategic railway alliances. This was initially achieved by adopting semi-structured interviews which explored and identified the views of the alliance partners concerning the importance of a strategic alliance, as well as the primary motivations for engagement, the benefits of adopting the alliances strategy, key behavioural factors and their influence on the SRAs performance. This stage was accomplished by using semi-structured, face-to-face interviews with the top level of the management (AMT) in the NHA. Following this, the questionnaire stage was conducted with the middle and operational levels of the same alliance; this represented the second primary data collection method.

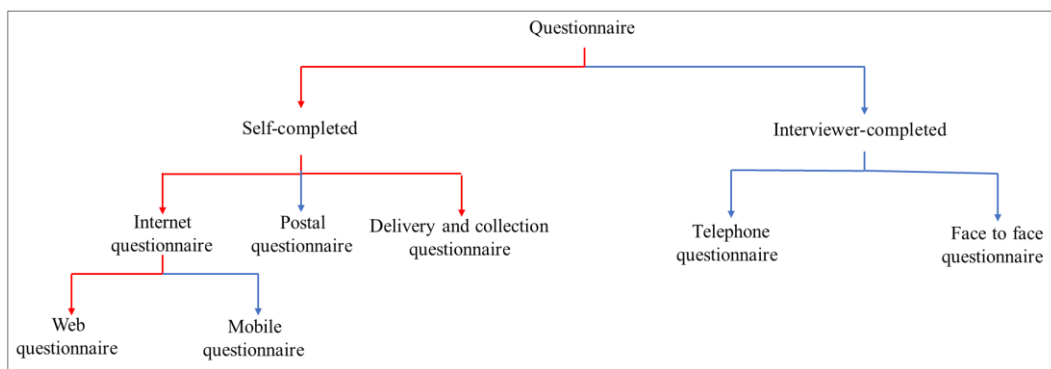
### **3.8.3 Questionnaire Survey**

A questionnaire (survey) is considered a vital research tool and is used in quantitative data collection. It usually consists of a short question style, which is appropriate to the data needs for that particular study. This method collected information on participants, behaviours, attitudes and beliefs, while investigating the reasons for the participants' actions (Bulmer, 2004). Moreover, a questionnaire is an efficient tool because it helps to gather data from a large sample, with standardised questions to aid the researcher to clarify the phenomena and examine the relationships among the variables (Gill and Johnson, 2010).

A questionnaire technique has two main types of structure: closed-ended and open-ended (Johnson and Duberley, 2000). In terms of a structured closed-ended questionnaire, the participants are provided with a list of questions and responses (*e.g. Yes/ No or Agree/ Disagree*). This type of questionnaire is mostly applied in quantitative research, as it can be easier to code and analyse. However, due to these limitations, vital and more nuanced information can be lost. In comparison, open-ended questions provide participants with the opportunity to answer 'in their own words', and therefore mostly relates to qualitative

research. A disadvantage of this type of questionnaire is the risk of obtaining responses outside the context of the research (Pallant, 2013).

In terms of the techniques for designing, distributing and collecting the questionnaire, there are two categorisations: *self-completed* and *interviewer-completed*. Self-completed questionnaires are usually answered by the participants and tend to include the use of electronic questionnaires over the internet. Moreover, some companies offer the opportunity for users to design sites and layouts when conducting surveys (such as Survey Monkey) whilst questionnaires can also be distributed by post or hand delivered (Greener, 2008). In addition, an interviewer-completed questionnaire is accomplished by recording the questionnaire and then conducting it by telephone or face-to-face (Saunders et al., 2012). Figure 3-9 illustrates these types of questionnaire design.



**Figure 3-9 Questionnaire Types Sources (Saunders et al., 2016)**

### 3.8.3.1 Justification of Adopting Questionnaire Survey and its Design

The use of a questionnaire survey is suitable to extend the findings that emerge from the qualitative stage during the exploratory sequential mixed-method research. Thus, the questionnaire is a key tool used for establishing the behaviours, attitudes, beliefs and characteristics of participants in relation to the subject under investigation. The reason for this, a questionnaire is working appropriately to extend the initial findings that are emerged from the qualitative phase during conducting exploratory sequential mixed-method research (Collis and Hussey, 2013). Tolmie et al., (2011) state that the questionnaire technique is highly flexible, permitting a researcher to investigate a wide range of research question/s, and enabling the study and determination of the relationships between factors and variables. Moreover, questionnaires help to collect information from a large sample, while at the same time requiring low levels of both cost and effort. Nevertheless, it can be difficult to establish a quick and deep comprehension of the phenomenon under investigation when using questionnaires.

In this research, the questionnaire technique is used as a supporting tool to obtain additional quantitative data. The main purpose of the questionnaire is to help the researcher to gain a broad understanding of SRAs within the specific case study of the NHA. The questionnaire helped to identify the behavioural factors that impact SRAs performance, including their motivation and the benefits of creating a strategic alliance. The characteristics of participants in the middle and operational levels of the alliance provided patterns of opinion and knowledge that may support and confirm the opinions of the top-level managers. These views were based on their role, engagement and experiences regarding the behavioural climate. This research used a web questionnaire design (Survey Monkey) to explore the opinions of participants and to measure the relationships among relevant factors and indicators. Open-ended questions are adopted and measured using a Likert-scale (see section 3.8.3.2). Analysis of the data collected by questionnaire conducted by SPSS 17. The benefit of using this questionnaire technique is that it enables the researcher to gain more information from a larger group of respondents within the limited time frame. In addition, it provided a comparison of data, which has been obtained from a small group of interviewees engaged and is specific in nature. A sample of the questionnaire is provided in the (see APPENDIX 2: The Survey Questionnaire).

### 3.8.3.2 Questionnaire Design (Likert-Scale)

This study uses a structured closed-ended questionnaire technique and adopts a Likert-scale, in which the participants are only required to provide particular answers to the questions list given. Using a Likert-scale means the behavioural variables and participants' opinions are captured and explained. Five scales of "agreement" (*strongly disagree, disagree, neutral, agree, strongly agree*) have been represented to obtain their level of agreement. Table 3-6 demonstrates the values designated for the Likert-scale.

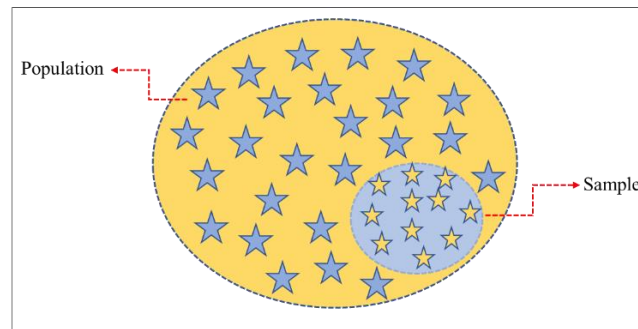
**Table 3-6 Values Designated for the Likert Scale**

Scale for the agreement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Value	5	4	3	2	1

## 3.9 Sampling in Research

According to Saunders et al. (2016) sampling is a fundamental requirement in research. Sekaran and Bougie (2016, p. 262) define a research sample as; 'the entire group of people, events or things of interest that the researcher wishes to investigate' as demonstrated in Figure 3-10. The selection of the research sample mainly relies on the research objectives. However, when the researcher decides to use a sampling technique, they must not ignore the essential factors, such as time limitations, accessibility to resources, and financial concerns (Saunders et al., 2016). The main aim of the sampling process is to generate a valid

and credible sample to match the accuracy required for the research. Sampling has two main categories: *probability/random sampling* and *non-probability/non-random sample*. A *probability/ random sample* means that each element chosen from the population is mainly equal or at least known. Additionally, the fundamental aim of using a probability sample is to minimise the sampling error (Kumar, 2014b).



**Figure 3-10 Population and Sample**

*Non-probability/non-random sampling* means that there are some procedures that cannot be included in the random sample at some stages of the process (Krathwohl, 1993); furthermore, Saunders et al. (2016) confirm that non-random samples can be classified into five branches - convenience, quota, snowball, self-selection and purposive sampling.

### **3.9.1 Sampling Type, Size, Technique for the Interviews**

#### **3.9.1.1 Sampling Type**

Determining the exact number of interviewees when conducting the interview technique is essential. Yin (2014) asserts that there is no constant and recommended number of interviews in qualitative research; instead, the number depends on finding out what needs to be known. Saunders et al. (2016) similarly suggest that, while sampling in quantitative research is based on the size of the research population, this formula changes in qualitative research, where the number of interviews is based on ‘replication logic’ rather than ‘sampling logic’. Importantly, a researcher adopting qualitative research should keep conducting interview sessions until the data becomes replicated or the saturation point is reached (repeating the same stories from different interviewees). This can persuade a researcher that there is no new information to emerge and thus no need to conduct further interviews. More critically, as this research adopts an exploratory sequential mixed-method design, a purposive sample should be chosen as a main stage in the qualitative approach (Creswell et al., 2011). Therefore, purposive sampling has been selected for the interviews. According to Saunders et al. (2016), purposive sampling helps the researcher to select



a case study accurately and assisted in answering the research questions, and thus meet the research objectives. In addition, this type of sampling is usually employed with case study samples, which are more informative. Barnett (2002) explains that, when selecting a purposive sample, the study must specify the sampling limitations and identify individuals who are willing to engage and provide information relevant to their experience or knowledge.

### **3.9.1.2 Sampling Technique**

As previously mentioned, this study selected semi-structured interviews, which are presented in detail in (see APPENDIX 1).

### **3.9.1.3 Number of the Interview Participants**

According to Patton (2002), when conducting semi-structured interviews, the number of sampled individuals should be decided during the study process. Furthermore, the researcher should ensure an appropriate sample size even if the saturation point is reached in the data collection. Such a point is fulfilled by finding new themes or discovering new information (Kumar, 2014b). Gray (2004) believes that there is no pre-determined number for a sample size. Moreover, for case studies, the sample size is usually small and thus purposive sampling is used (Saunders et al., 2012). As a result, the interview sample size depends on the level of consensus (Guest et al., 2006). Whilst, Guest et al. (2006) confirm that interviews should reach their saturation point after 12 interviewees; this number is fundamental in achieving enriched information. However, Creswell et al. (2011) stated that when adopting case studies strategies, a small number of interviewees is used (between four to 10) persons which is likely to be sufficient as it considers the homogeneity of the population. As this research aims to understand the perceptions, beliefs and opinions of top-level managers from the NHA regarding the impact of behavioural factors on SRAs performance, the sample participants are likely to be similar. Moreover, they are sharing common experiences, which allows the researcher to recognise and explore the phenomenon of the subject in greater depth. Additionally, the saturation of information is likely, although this also depended on the complexity of the subject matter.

Therefore, this research sample is considered to adopt snowball and purposive techniques, in order to interview a total of eight senior AMT managers from the NHA; which enabled to reach data saturation. To achieve the aim of this research, reliable data are gathered from persons within the alliance. All managers are working at the strategic level in the NHA. This level offered clear and in-depth information on the different behaviours and tasks within the alliance and was further supported by the diversity of

managers and their companies' backgrounds. Including this level enhanced the validity of this research by facilitating the collection of different points of views.

### **3.9.2 Sampling Type, Size, Technique for the Questionnaire**

#### **3.9.2.1 Sampling Type**

In terms of the questionnaire sampling technique, large samples of participants are needed within quantitative research, as this lowers the level of error, when generalising the findings of the whole population (Saunders et al., 2012). Sampling techniques have many types, such as *simple random, systematic, stratified, cluster*. The simple random technique allows the researcher to choose a sample number of participants without bias (Saunders et al., 2016). This technique is suitable when the researcher has an accurate number of the full population. Although this sampling technique is not fundamentally appropriate for a large geographical area, it might be more suitable when the researcher utilises an online data collection technique, such as Survey Monkey, or email. As a result, this study uses simple random sampling, which is administrated by computer, and an online random number generator and web questionnaire (Survey Monkey) (Sekaran and Bougie, 2016). In this exploratory sequential mixed-method design, questionnaire participants had not previously engaged in the semi-structured interview sessions. This is due to the need to generalise the results, and thus expand the population from those not engaged in the first stage. Therefore, a larger sample of participants engaged in this second stage of primary research (Creswell, 2014).

#### **3.9.2.2 Sampling Technique**

As previously mentioned, this study selected the questionnaire technique, which is presented in (see APPENDIX 2).

#### **3.9.2.3 Number of the questionnaire Participants**

There are multiple approaches to determine the sample size for a questionnaire; one fundamental quantitative sampling strategy involves random sampling, which is a probability sampling approach (Muijs, 2004). The strategic approaches that can be used to determine the sample size include the use of a qualified published table to determine the exact sample size of the target population with diverse confidence levels and margins of error. Therefore, the researcher used a typical (published) table in order to identify the sample size of the population. This is demonstrated in Table 3-7 and confirmed an acceptable sample size according to various levels of confidence and margins of error.

**Table 3-7 Sample Size for various Sizes of Target Population at 95% confidence level (Saunders et al., 2016)**

Target Population	Margin of Error			
	5%	3%	2%	1%
50	44	48	49	50
100	79	91	96	99
150	108	132	141	148
200	132	168	185	196
250	151	203	226	244
300	168	234	267	291
400	196	291	343	384
500	217	340	414	475
750	254	440	571	696
1000	278	516	706	906

Having consulted official statistics from the official website and/or published documents from the NHA, the researcher found it difficult to determine the sample size of the target population. However, another technique was used to identify the target population, namely by asking the head manager in the NHA (when conducting the interview) about the number of employees working at their middle and operational levels. He responded that there are approximately 100 persons at both levels. The researcher then ensured that the survey population was based on that number and the instrument was disseminated via an online questionnaire (Survey Monkey), which was distributed through the alliance system. This process was conducted by using a random-snowballing approach to share the survey with participants, as prompted by the manager who distributed it within the alliance system. Therefore, the distribution of this survey targeted 100 persons, although the total response rate was 73.

The questionnaire sample included several questions, which related to demography (job title, age, education qualification, and years of experience, participation previously within strategic alliances). The questionnaire adopted this pattern in order to achieve the objectives of this research, namely: to evaluate the impact of behavioural factors on the performance of SRAs in the UK and to develop a typical framework and strategic guidelines to successfully manage alliance tasks. Therefore, this questionnaire was randomly distributed among the middle and operational management levels in the NHA in order to ensure the sample was as representative as possible. Also, participants were not forced to respond; instead, their participation was voluntary.

### **3.10 Pilot study**

According to Saunders et al. (2016), the goal of conducting a pilot study, is to test the questionnaire, interview and checklist, in order to decrease the possibility of misunderstanding or error when answering the questions. The pilot study aims to assess the reliability and validity of the questions and ensure that the questions are clear, unambiguous and sensible. The number of participants who engage in a pilot study

differs from case to case, although the minimum number of participants for this pilot was ten, and included friends and colleagues, who could support the researcher by giving feedback on whether the question/s made sense or not (Fink, 2003).

To achieve the purpose of this research, a pilot study for the interview questions was conducted. The pilot study aimed to circulate and discuss the research questions, aim and objectives. An initial interview draft was shared with the research supervisor to enhance the degree of validity and to modify any problematic questions. The second pilot stage was conducted with five PhD students at the University of Salford in the UK, who understood the field of strategic alliance and management. Consequently, feedback obtained from both pilot studies proved invaluable, because it helped to modify the interview and questionnaire questions. Changes included re-phrasing and adjusting the language to ensure the research was more understandable, clear and sensible.

Moreover, to ensure the questionnaire was comprehensible and easy to follow, the researcher designed the questions based on the results from the interview sessions and piloted it with the assistance of the supervisor and five associate managers in the NHA. The aim of this pilot study was to examine the survey reliability and resulted in minor revisions to the original format of the questionnaire.

### **3.11 Ethical Approval**

Ethical approval, according to Gray (2004), is the ideology of behaviour, which guides honest choices about behaviour and relationships with others. With respect to the University of Salford's policy, the researcher had to apply for ethical approval before conducting the pilot or empirical studies. This stage was completed because the researcher had to ensure the preservation of the participants' dignity and integrity. In this vein, to ensure the participants were satisfied with the research, the interviews were conducted only when the interviewee's consent was gained and once interviewees were informed of the purpose of the study (see APPENDIX 4). Furthermore, the interviews were held at convenient times and the participant was advised of their right to withdraw at any time. Ultimately, the confidentiality and anonymity of the interviewee's personal data and their answers were guaranteed in advance.

### **3.12 Triangulation**

Triangulation concerns the fundamental strength of the case studies compared with the other methods; it thus entails the gathering and cross-referencing of evidence from multiple sources. The main purpose is to use evidence from multiple sources in order to combine the same facts or findings. Therefore, it can be defined as the combination of a group of methods for the same phenomenon (Hussein, 2009). The logic

of triangulation asserts that no single method can address the problem of rival explanations (Patton, 2002). Gray (2004) states that triangulation is combination of qualitative and quantitative methods; for example, one group of persons might be interviewed while others may complete a designed questionnaire. This argument refers to the fact that each method is capable of illustrating different aspects of empirical reality, and no method can be considered superior to the other (Walker, 2005).

According to Saunders et al. (2016), methodological triangulation is an important principle, which has two different purposes; these purposes are facilitation and evidence triangulation. Firstly, facilitation occurs when the researcher uses one data collection technique, which is helped by another data collection technique. The important characteristics of the triangulation are: the ability to collect both qualitative and quantitative data, and the capability of analysing these separately collected data (Creswell et al., 2004). For instance, it might be appropriate to triangulated qualitative data (collected via interview sessions) with quantitative data (collected via a questionnaire survey). Importantly, data triangulation in a single case is considered fundamental to enhance validity, in view of the absence of a comparator case (Collis and Hussey, 2013). In this research, therefore, the interview findings helped to build the questionnaire. As a result, the evidence collected from the interview techniques helped to design the questionnaire.

In practice, triangulation occurs when the researcher uses evidence from more than one data collection technique; this enhances the trustworthiness of the study outcomes (Saunders et al., 2016, Saunders et al., 2012). In this research, triangulation occurred when the researcher combined outcomes that emerged from the interview and the questionnaire techniques; this helped to assure that the collected evidence had produced trustworthy solutions. Furthermore, the combination of (interviews and questionnaire) methods not only helped in the data triangulation but also balanced any existing weaknesses in the data collection methods (Saunders et al., 2016). Thus, this research adopted a mixed-methods approach as a means to balance the weaknesses of each method with the strengths of another method.

This research uses a mixed-method design, and several researchers (Caracelli and Greene, 1997, Creswell and Clark, 2007, Mertens, 2015) agree that there are two classification approaches with important differences under each approach. These approaches are categorised as *parallel* and *sequential* approaches. The parallel approach can be defined as the use of two or more data collection techniques, where each technique is achieved independently of the other, resulting in triangulation. In comparison, the sequential approach can be defined as each data collection technique helping another data technique.

Therefore, a sequential approach is adopted in this research, because it does not involve independent data collection techniques, as ultimately each technique affects the other. Additionally, mixed-methods

approach in this research enhances the validity, where evidence of the interview sessions was confirmed by the data collected via the questionnaire.

### 3.13 Summary of Research Objectives and Techniques for data collection

This provides a summary for the research objectives and explains the step-by-step analysis procedures for the data collected. The tools used for the data collection, and the sampling techniques, and population sampled have been discussed. In order to add breadth and depth to this research, multiple sources of evidence were consulted, whilst primary and secondary data were considered to develop the findings of this research. Mixed-method research was employed within a single holistic case study strategy; this aimed to ensure rigour and that the findings could be generalised. The data collection was conducted during two phases - the interview sessions were run in November 2017, and the results enabled the researcher to build the questionnaire survey, which was conducted in April 2018, see appendices (APPENDIX 1 and APPENDIX 2).

**Table 3-8 Research Objectives in Relation to Method of Achievement**

No	Research objectives	Literature review	Semi-structured interviews	Questionnaire
1	Explore the concept of strategic alliances and how it is being utilised in the railway industry in the UK.	*		
2	Understand the strategic railway alliances behaviours.	*		
3	Discover the main motivations and benefits for the SRAs in the UK.		*	*
4	Identify and evaluate behavioural success factors and behavioural negative factors impacting the performance of SRAs in the UK.		*	*
5	Develop a framework and a strategic guideline for enhancing the performance of SRAs.	*	*	*

The data collection instruments, such as interviews and the questionnaire were used sequentially to supplement each technique; this adopted a process known as triangulation (Yin, 2014). This process enabled the collection of rich data by combining a range of information to verify, prove and strengthen the validity of this research. The primary data were collected through key formal semi-structured interviews with head managers in the NHA, and a questionnaire survey to middle and operational management levels of the same alliance. Secondary sources of data were used in this research and

analysed within the literature review; this considered railway industry collaborations particularly and business alliances in general.

### **3.14 Data Analysis procedures**

One of the most important parts of any research is the data analysis, because it helps the researcher to examine the collected data and reach a suitable conclusion. A data analysis process includes examining, testing, tabulating, and the categorising both qualitative and quantitative evidence, in order to cover the initial propositions of the research (Yin, 2014). According to Saunders et al. (2012), there is no standard method to analyse qualitative data. Phenomenologists, for instance, resist the categorisation or coding of data, and instead prefer to work directly from an interview transcript. There are three main types of qualitative analysis process: the summarisation of meanings, categorisation of meanings and structuring of meanings.

A quantitative technique is widely considered to be synonymous with statistics and graphs or the use of numerical data (Saunders et al., 2012). Moreover, quantitative research usually has strong bonds with academic research, where results are often represented in tables and graphs. It investigates questions such as what, where and how. Quantitative analysis refers to ‘quantities’ which determine whether something occurs or not in terms of frequency, number and amount (Peck et al., 2015, Gray, 2004). A quantitative technique (questionnaire) is usually analysed using SPSS software to achieve descriptive statistics (Boone and Boone, 2012). Therefore, non-parametric tests are useful when analysing data from a five-point Likert scale, and are thus employed in this research.

However, when analysing qualitative data there are two different approaches, namely deductive or inductive. The deductive approach helps the researcher to draw relationships between research on different subject areas, such as content analysis. Content analysis is considered a fundamental approach for analysing qualitative data. Conversely, the inductive approach represents the exploration and collection of data to clarify essential elements or issues within research (Saunders et al., 2009). Nevertheless, Yin (2014) confirms that an inductive approach is difficult and might not successfully achieve the results intended, especially amongst inexperienced researchers.

Therefore, in this research, thematic analysis using the NVivo software was employed to analyse the semi-structured interview and fulfil the third research objective. The qualitative approach is often used as a synonym for the term interview, because it refers to the use of non-numerical data. However, qualitative data can also refer to an informational pattern other than words, such as video clips or pictures (Saunders

et al., 2016). Hence, the main goal of a qualitative approach is to examine research issues and elements from the perspective of the interviewees, to comprehend how and why they preserve their points of view (Cassell and Symon, 2004).

### 3.14.1 The Interview Data Analysis Procedures

One of the more important parts in any research is the data analysis phase because it explains the way in which the researcher examines the collected data and reaches reasonable conclusions. In this research, a thematic analysis method helped the researcher to clarify, analyse and report paradigms within the data (Braun and Clarke, 2006). Collis and Hussey (2013) stated that a content analysis technique is utilised to analyse the text of the data collected by understanding, interpreting and analysing it and categorising themes specified by the research question/s and data.

A thematic analysis was conducted systematically on the data collected from the semi-structured interviews. Thus, this analysis does not focus on quantifying the words in the data transcripts, but rather identified the themes from interviews transcripts. Thematic analysis aims to identify patterns and themes that can be coded and organised into a set of data ready for further analysis (Easterby-Smith et al., 2015). Therefore, the semi-structured interview questions were designed to clarify themes, where the main emerging elements were considered the basis of the research findings.

Thus, the findings from the thematic analysis informed the design of the quantitative questionnaire. Thematic analysis was adopted in this research when analysing the semi-structured interviews. Six stages were used for the qualitative data analysis and each stage depended on the previous one; it enabled the researcher to achieve the objectives of the qualitative data analysis. Therefore, this method helped the researcher to focus on specific parts of the data and to condense them into summaries (Braun and Clarke, 2006, Namey et al., 2007) as illustrated in Figure 3-11.

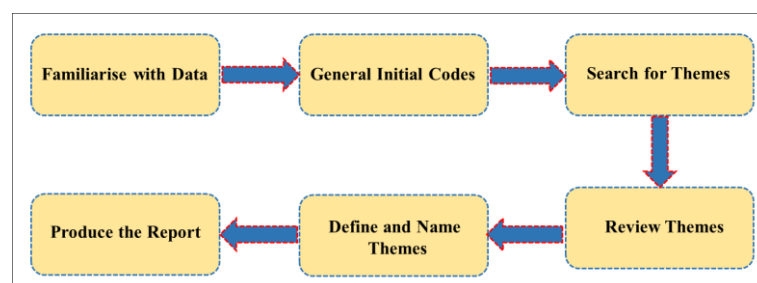


Figure 3-11 Stages of Thematic Analysis (Braun and Clarke, 2006)



There are many of qualitative software programs which assist a qualitative research analysis, such as, Computer-Aided Qualitative Data Analysis Software (CAQDAS), whilst other computer software packages can be used to capture quotes, such as ATLAS, MAXQDA, NVivo. It is important to mention that computer software packages contain advantages in terms of qualitative data analysis. However, they also pose a number of drawbacks (Welsh, 2002). The most important advantage of CAQDAS is that it supports a wide range of qualitative and mixed-method research analysis, such as video, audio and text memo (Woods et al., 2016).

The NVivo software package help researchers to handle, manage and store the data collected from qualitative research. Based on the nature of this software, it cannot conduct the task of the researcher; therefore, it is unable to organise and store data, and so the categorisation or conceptualisation of qualitative data remains the major responsibility of the researcher (Easterby-Smith et al., 2015). The interface of NVivo is similar to Microsoft, which is generally considered user-friendly. Using NVivo helps the researcher to manipulate data records, browse, code, annotate, and obtain access to data records easily and accurately (Azeem et al., 2012). Also, through using NVivo, it is possible to ensure (Hoover and Koerber, 2011):

1. **Efficiency:** using NVivo when coding and retrieving data is considered more helpful and efficient than manual processes or when utilising digital processes, such as Microsoft Word and Excel.
2. **Multiplicity:** using NVivo enables researchers to store multiple data file types and eventually this data will be easy to transfer to code; from this, these forms of data can convert into nodes.

Nevertheless, there are several advantages in using NVivo software: firstly, Word documents can be imported directly to the software; secondly, this document can then be coded in a straightforward manner (Bazeley and Jackson, 2013), finally, it facilitates the creation of notes, coding of interviews, editing, forging of data linkages, and the writing of reports (Zamawe, 2015). As a result, NVivo enables researchers to analyse detailed and complex data, which relate to a specific topic; moreover, it is particularly useful where the transcripts that result from the interview coding are too large to be managed manually. Thus, conducting the data coding for all information means this process systemically increases the validity and reliability of the research (Zamawe, 2015, Bazeley and Jackson, 2013).

Furthermore, the latest version of NVivo v11 was used to handle the thematic analysis when processing the data analysis. Using the software assisted meant the researcher developed skills and knowledge both during and following the research process. Thus, NVivo aimed to analyse the collected data and transform it into themes and sub-themes that explored the relationships and considered the importance of validation. Figure 3-12 shows a screenshot of the thematic coding using NVivo software.

Hence, the use of NVivo v11 in this research strengthened the ability to fulfill the five research objectives. The researcher utilised NVivo to analyse qualitative data as the data notes were transferred and coded using the software. The information provided during the interview session was transformed from transcript to Word files, and thereafter, these files were imported into NVivo. Procedures were followed to develop organised themes and sub-themes, which were identified and were prepared as codes for further analysis. Furthermore, the data coding was used to assist the researcher when determining and establishing a diversity of interpretations for the phenomenon under investigation.

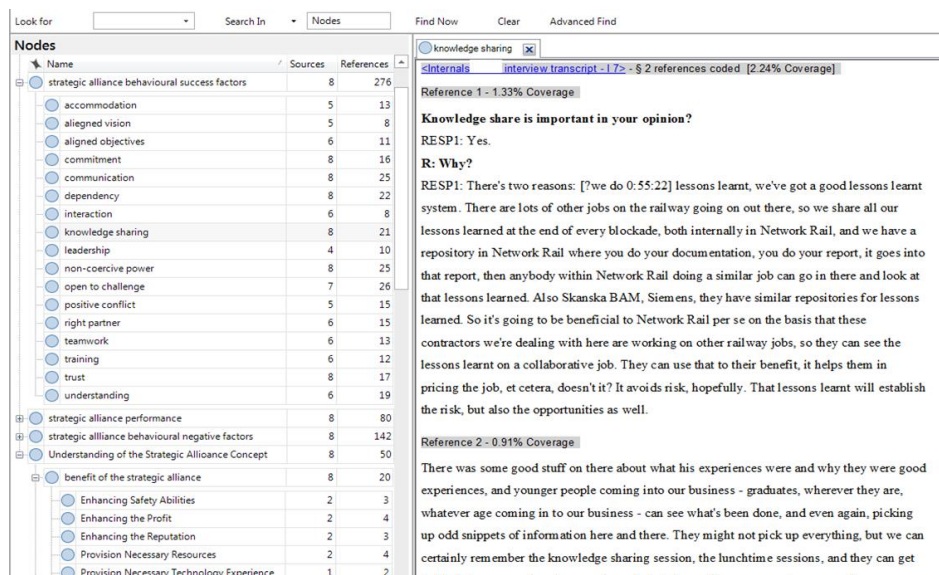
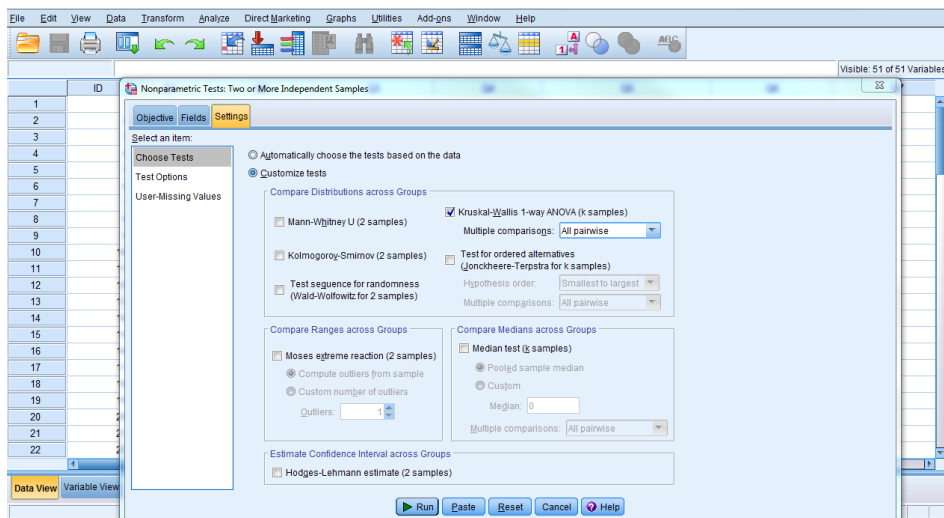


Figure 3-12 Screenshot Illustrating Free-flowing Text of Coded Information in NVivo (Version 11)

### 3.15 The Questionnaire Survey Data Analysis Procedures

This section describes the quantitative data analysis process of this research. Section 3.8.3.2 demonstrates the questionnaire design and the type of data and information obtained, and section 3.9.1.3 shows the potential number of respondents, response rate and technique used to distribute the instrument. Data was collected automatically and imported from the Survey Monkey as an Excel sheet, then exported to SPSS version 23 (Statistical Software Package for the Social Science). Finally, it was subjected to statistical testing as described in Chapter 5.

The use of SPSS is widespread amongst the educational sector of the social sciences (Field, 2013, Pallant, 2013). However, utilising this software requires highly statistical knowledge, and relies heavily on the personality and intelligence of the researcher (Field, 2009). When using this software, there is a wide range of statistical techniques that should be aligned with the type of research subject. Multiple alternative tests are offered by IBM SPSS software, such as descriptive statistics (represent as graphs and the exploration of the data), or the generate relationships among variables by using inferential statistics, such as  $X^2$  and KWT (Pallant, 2013). Figure 3-13 illustrates a screenshot of the data analysis process using SPSS software.



**Figure 3-13 Data Analysis Process Using SPSS**

Due to the nature of this research, descriptive and inferential statistics were employed as quantitative data analysis methods. It is important to use descriptive analysis to determine the focus of the questionnaire and therefore understand the respondents' opinions at the middle and operational levels; these consider their function, qualification, experience and involvement within the SAs.

The size of the sample and the way of designing questions determine suitable inferential tests for use by the researcher. The  $X^2$  test is appropriate for testing a proposed hypothesis to determine the relationships amongst the factors and to confirm the importance of a factor by measuring its significant value. Furthermore, the KWT was used in order to identify the relationships between the independent and dependent variables in the SRAs framework, which informed an understanding the impact behavioural factors on the performance of SRAs in the NHA.

### 3.16 Reliability and Validity

Achieving a good quality study relies on both reliability and validity. The research choice selected in this research concentrated on increasing the reliability and validity of the data collected. Although there are different processes to increase both these elements for both qualitative and quantitative approaches, (Morse et al., 2002) stated that reliability and validity might be fulfilled through applying various verification strategies. Furthermore, many scholars (Collis and Hussey, 2013, Muijs, 2004, Creswell, 2014, Field, 2009) focus on explaining reliability and validity, which confirms the ongoing debate in distinguishing these two terms. In fact, the formation of the validation stage was conducted by selecting high-experienced experts from the same strategic alliance (NHA). The four experts have never been involved in the sessions of data collection (semi-structured interviews). This stage conducted by contacting the head manager of NHA to help the researcher to facilitate arrangements with a number of experts to conduct the interviews to validate and refine a strategic guidelines and framework to be understandable and achievable. Therefore, the researcher used letters (VE) to refer to the experts' names in order to keep their privacy and confidentiality. All details of the validation stage conducted were provided in section 8.2.

#### 3.16.1 Reliability and Validity of the Qualitative Approach

According to Creswell and Miller, (2000), Suter, (2012), any research needs accurate and reliable results, which are important to fulfil quality. Reliability according to Yilmaz (2013, p. 317) is a 'consistency or the degree to which a research instrument measures a given variable consistently every time it is used under the same condition.' Moreover, research is required to satisfy standards for collecting and measuring data that ensure reliability and validity. Furthermore, Schreier (2012) explains that reliability is considered a criterion, and used in evaluating the quality of a particular tool, such as a test or coding frame and questionnaire. In addition, a reliability test within qualitative content analysis can be achieved in the coding frame in order to ensure it is reliable; this can eventually be translated into consistency. Saunders et al. (2016) asserted that the reliability of management research concentrates on a similar replication of the findings, which aligns with the view of Field (2009) who explains that reliability can be achieved through the ability to use an instrument that is capable of producing identical results under the same conditions. Schreier (2012) provides two qualitative reliability tests:

1. **Comparisons across persons:** this means two or more coders are using a similar coding pattern to analyse the same units, and they are doing so separately of each other. Therefore, these coding patterns are considered reliable if the outcome is applied across different coders.

2. *Comparisons across points in time*: this means that there is one coder who uses the same coding pattern to analyse the same units of coding. It is considered reliable if a certain period has passed and the results have not changed.

Saunders et al. (2016) proposed several methods to achieve a high degree of the reliability in semi-structured interviews: firstly, the researcher should adopt a comprehensive and coherent design for the research structure. Secondly, the researcher should provide initial information to the participants related to the research topic, this should be conducted prior to managing the actual interview sessions. Thirdly, advanced preparation should be conducted for semi-structured interviews, including questions lists, in order to reduce the bias; thus, using an open and probing format and different types of questions enhances the exploration of the topic and can increase the desire of a participant to engage and provide extensive answers.

Therefore, in the current research the researcher is aiming to achieve reliability by outlining the reasons for selecting research strategy, along with discussing the appropriate methods and analysis techniques for the data collected as already discussed in this chapter. The researcher employed subsequent procedures to understand the process adopted for use with the research findings. Moreover, to increase the reliability of the semi-structured interviews, the researcher developed a list of research themes and information regarding the subject covered in the literature; this list was drawn up and distributed to managers at the top level of the NHA to inform them of the researcher's interest, while at the same time offering the opportunity for participants to feel prepared for the interviews. Ultimately, in order for the interview questions to be reliable and comprehensive, the researcher combined open and probing questions. This step assists the researcher to fully explore the phenomenon under investigation in the NHA (semi-structured interview questions in (see APPENDIX 1).

However, the validation of a qualitative approach and quality of the research design does not only depend on its reliability; validity is also an important requirement, which suggests that single approaches are considered insufficient (Collis and Hussey, 2009). Conducting qualitative research can generate high quality results by probing the opinions and views of participants and presenting an extensive analysis of all the themes and factors in the research; this should demonstrate a high-level accuracy when reflecting interviewees' opinions, and thus lead to qualitative validity. Therefore, accurate data analysis and findings can be generalised, Field, (2009), Clark and Creswell, (2011) provide some procedures that help the researcher to test the accuracy of results. The following points represent qualitative validity which was carried out in this research:

1. **Participant checking:** means showing the analysed interview results and then determining whether the participants accept the accuracy of the results.
2. **Thick and rich descriptions:** mean using rich descriptions to convey the results and confirm genuineness. These aid transportation of the reader to the research setting.
3. **Negative or discrepant information:** meaning any information that differs from the main perspectives of the themes should also be included in the discussion of findings.

Furthermore, several authors asserted that there are several ways to achieve validity in a qualitative approach, namely: *internal validity*, *external validity* and *construct validity*. These are further outlined by (Yin, 2014) and also considered in this research:

1. **Internal validity:** focuses on finding relationships among events, which are considered necessary and applicable in experiments and causal studies. This can be judged in two ways: 1) by returning to the literature review, and 2) by using an independent panel of experts.
2. **External validity:** refers to whether the findings of the study are compatible with another study (Gibbert et al., 2008). On the other hand, Quinton and Smallbone (2005) suggest that it refers to the potential to generalise the findings to the research data. Thus, the researcher should be careful when selecting a representative sample size from the whole population (Saunders et al., 2012). Hence, the researcher attempted to ensure focus when selecting participants to conduct this stage, and to check they formed a representative sample, and thus could confirm a high degree of external validity. As a result, in the qualitative stage, the targeted sample included participants representing AMT in the NHA.
3. **Construct validity:** means that, at the data collection stage, the researcher should consider establishing accurate operational measures for the study context; thus, a case study should consider using multiple sources of evidence in order to create a chain of evidence (Yin, 2014). The construct validity in this research was considered when designing the questionnaire. The process was followed to ensure the questions were designed and asked correctly. Furthermore, to ensure the solidity of this research, the researcher consulted multiple sources for the data collection methods and adopted a mixed-method exploratory sequential research design. Thus, the construct validity was based on the findings that emerged from different sources of data, including the guidelines, and the literature review which focused on the concept and aspects of strategic alliances, along with the behavioural factors that influence the performance of SRAs.

The design of the questionnaire aimed to increase validity by structuring the format of questions so as to focus on the objectives of the research.

### **3.16.2 Reliability and Validity of the Quantitative Approach**

In terms of a quantitative approach, the reliability of a quantitative approach implies consistency. Similarly, according to Field (2009), the reliability of this approach means the capacity of the questionnaire instrument to produce consistent results when used with the same participants at different times. In addition, reliability can be considered as the robustness of the questionnaire, and specifically whether consistent results will show in different conditions or at different times (Saunders et al., 2012). In this research, a reliability test is able to determine the ability of the instrument to collect the required data, hence, Bryman and Bell, (2007), Yin, (2014) provide three measures of reliability for a research instrument, as follows:

1. Stability
2. Inter-observer consistency
3. Internal reliability (Cronbach's alpha)

Moreover, a *stability test* requires the questionnaire to be tested twice with the participants, and the correlation of the data is then applied to determine the reliability of the instrument. Secondly, *inter-observing consistency* focuses on whether two existing observers are consistent in their observation (Trochim, 2006). Thirdly, *Cronbach's Alpha* is the most important method for measuring internal reliability (Yu, 2005, Pallant, 2013, Gray, 2004). This test helps to determine the correlation average between the factors in a questionnaire to measure its reliability. Thus, the results in a value would be between 0 (meaning no correlation exists, and as a result, no internal consistency), and 1 (denoting an excellent correlation). A score of 0.9 and above indicates good reliability, whilst and 0.7 and above indicates an acceptable reliability (George and Mallery, 2007). Based on the previous discussion, this research adopted Cronbach's Alpha test to measure the reliability of the questionnaire. Table 3-9 illustrates the reliability results for this research. The result of the Cronbach's Alpha reliability test is 0.854, which indicates a strong correlation; therefore, the questionnaire scale adopted considers reliable and statistically acceptable.

**Table 3-9 Reliability Statistic Results for this Research**

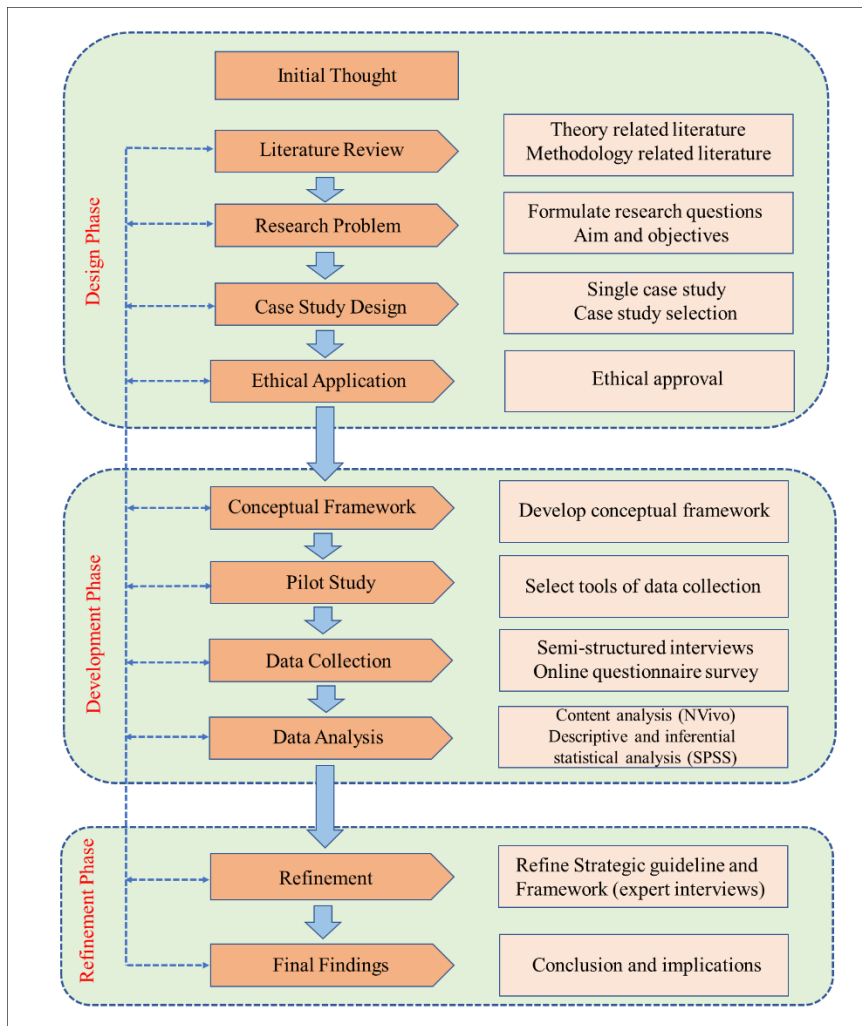
Cronbach's Alpha	Number of Items
.854	46

However, further consideration needs to be given to establishing quantitative validity. The absence of an appropriate questionnaire in an existing study motivated the researcher to design and evaluate a new questionnaire (de Yébenes Prous et al., 2009). Thus, the researcher designed a new questionnaire to measure the perceptions of participants at the middle and operational management levels concerning the main quantitative results. Importantly, one of the more effective forms used to evaluate the validity of the questionnaire is construct validity, i.e. how well the elements of the questionnaire represent the conceptual structure. Two statistical tests were run to determine the construct validity in the adopted questionnaire survey; thus,  $X^2$  and KWT were conducted to validate the factors in the framework.

In general, this research was based on three essential phases: the design phase, the development phase and the refinement phase, Figure 3-14 demonstrates the phases of the research.

1. **Design phase:** which includes the basic steps involved in designing the current research, namely: initial thoughts, literature review, identifying the research problem, case study design and getting the approval for ethical requirements;
2. **Development phase:** which involves conducting actual steps, namely: a pilot study, data collection, data analysis and developing the framework;
3. **Refinement phase:** which includes the ultimate stage when finalising the research, namely: refining the conceptual framework based on research findings and finally solidifying the proposed conclusions.





**Figure 3-14 Research Phases**

### 3.17 Chapter Summary and the Link

This chapter extensively discusses the research design and justification of research methodology. This considered the research philosophy, approaches, choices, strategies and techniques employed to collect and analyse the primary data of this research.

A pragmatic philosophical stance was adopted by the researcher that used a sequential approach that combined qualitative and quantitative methods in order to fully understand and explore SRAs in the UK. Multiple sources of data (primary and secondary) were collected to fill the gaps in each data source and this provided the research with sufficient insights to develop the conceptual framework. Having discussed the research methodology, the next chapter outlines the qualitative data analysis.

## **Chapter 4 Qualitative Data Analysis and Interpretation of Results**

### **4.1 Introduction**

Qualitative data analysis of this research will be elaborated in detail within this chapter. For the case study, background information on the NHA will be provided, then an analysis of the interview transcripts regarding current behavioural factors that impact the performance of SRAs in the UK will be identified and described in more detail. Using Nvivo software, all the interview data will be highlighted, and several of the themes and sub-themes, that have emerged, will be correlated to the elements which are under study. Following this, the questionnaire questions will be designed to aid the understanding of SA concept in the UK railway sector. Moreover, an in-depth discussion of the qualitative analysis data is included in this chapter. Finally, key findings obtained from the data analysis will be highlighted at the end of this chapter.

### **4.2 Northern Hub Alliance Project Background (NHA)**

The NHA is considered the most significant rail alliance in the North of England, which links and crosses in and around the centre of Manchester. Such plans have been proposed in various forms over the last 40 years, but until now, did not have necessary vision, strategy, planning, innovation and teamwork to secure success (Awards, 2019). These collaboration of rail corridors limit the capacity, performance and connectivity for commuters and long-distance passenger services, that terminate in Manchester or pass through the NHA. It therefore adversely affects journeys between the North's city regions. It also limits the number of trains, from across the North and beyond, that can serve Manchester Airport, the North's principal airport, as well as those that can access important distribution centres for freight. On the 4<sup>th</sup> of October 2007, the then Department for Transport Minister, responding to the work of the Northern Way, asked Network Rail to undertake a study to develop proposals that would enhance the capacity and functionality of the Manchester Hub. The Manchester Hub study outlined the project, which was released by Network Rail in February 2010, with costs estimated at £530 million pounds, which were subsequently reassessed at £560 million pounds (NetworkRail, 2019c).

Consequently, the chancellor approved expenditure of £85 million pounds for the Ordsall Chord in his budget on the 23<sup>rd</sup> of March 2011, with other aspects of the scheme reviewed to ensure best value. A further £130 million was committed in the chancellor budget of March 2012, and approval for the full scheme was confirmed by the government on the 16<sup>th</sup> of July 2012. The first trains were expected to run

on the Chord in December 2017, with the project being completed by 2018. The project started officially in October 2015, and 300 metres of new track were laid over the world's first asymmetrical rail bridge, creating a link between the main train stations of Manchester's city centre for the first time, as well as enabling new, direct services to Manchester Airport from the North as shown in Figure 4.1. This project would provide many benefits not only to passengers but also to the wider economy (Awards, 2019), including:

- ✓ New direct links to Manchester Airport from across the North of England.
- ✓ A reduction in congestion currently seen at Manchester Piccadilly by a quarter with some services being rerouted through Manchester Victoria.
- ✓ More capacity on the railway, resulting in more frequent trains.
- ✓ Three main Manchester stations will be linked, meaning improved connectivity for those travelling through the city and beyond.
- ✓ The local and wider economy will be boosted, helping create more jobs.
- ✓ There will be links near to new business and residential developments.
- ✓ The project will support the delivery of a multibillion-pound Great North Rail Project, part of the wider railway upgrade plan, meaning faster and more frequent trains.



**Figure 4-1 Northern Alliance Hub Project (NetworkRail, 2019c)**

Inevitably, as the Ordsall Chord spans such a complex urban landscape, risks and serious challenges occurred. Throughout the project, the team reached a resolution as one collective unit. Achieving this position meant that a large group of industry practitioners had to work together in one single-minded way as a strategic alliance. This took a considerable time and effort commitment from all parties involved

(NetworkRail, 2019b). Figure 4-2 shows the plan to develop the railway network by implementing the NHA project.

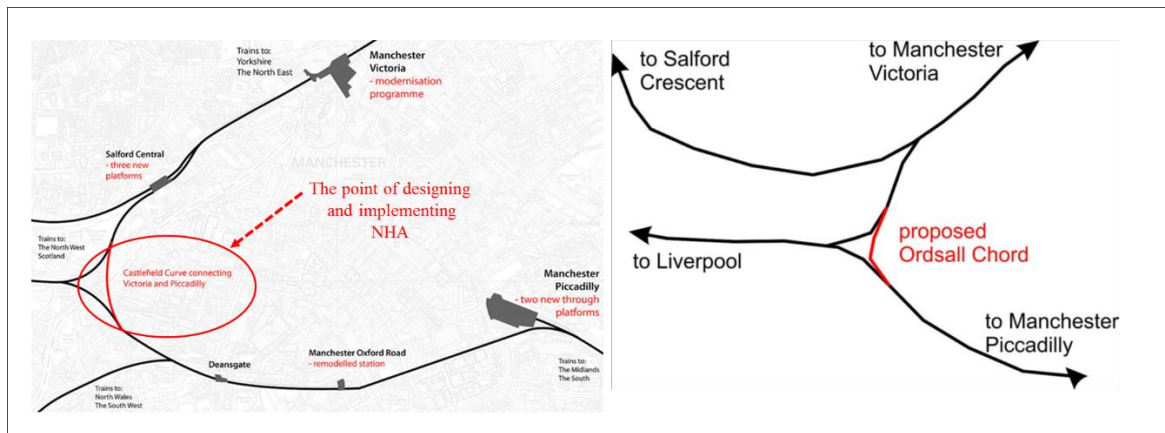


Figure 4-2 Plan of Implementing Project of NHA (Wikipedia, 2019)

### 4.3 Surveyed Sample

The management teams (alliance managers) have been chosen as the main sample in this research due to their position in producing decisions and managing the railway sector. This selection is critical due to the managers and consultants being very experienced and therefore able to reflect on their understanding regarding the important factors which can lead an alliance towards success. In total, eight participants (experts) from NHA project were involved in the interview sessions. Those participants all work at the same level of the alliance management, which is in the North West of England, with similar experience.

The main characteristics of this alliance in this research are as follows; the companies are effectively involved in this alliance and they have been established for more than 10 years and have more than a decade of experience in the railway sector. Therefore, these firms would have experienced the government policies and the nature of trends in the construction industry and how their businesses and the way of managing their projects has been affected. All the companies which are involved in this SA, are categorised as either medium or large company, and the nature of their business is mainly civil and infrastructure structural design.

To keep in line with ethical approval requirements and for anonymity, the participants labelled as P1, P2, P3 and so on, without any mention of order of importance. The following Table 4-1 shows a description of the sample interviewed in this research, including the managerial level and years of experience.

**Table 4-1 Description of Sample Interviews**

<b>Participants Labels</b>	<b>Managerial Level</b>	<b>Years of Experience</b>
P1	Alliance Commercial Manager	30 Years
P2	Alliance Project Director	35 Years
P3	Alliance Project Director	25 Years
P4	Alliance Planning and Controls Manager	15 Years
P5	Alliance Safety Manager	19 Years
P6	Alliance engineering Manager	22 Years
P7	Alliance Commercial Director	35 Years
P8	Alliance Programme Manager	48 Years

Referring to Table 4-1 above, the participants who are interviewed in this research all work in top managerial positions. The main reason for the selection of this group is that they are representing multiple backgrounds of companies which can enrich the investigation regarding the behavioural factors impact the SRAs performance.

#### **4.4 Findings of the Qualitative Data**

In this section, the main findings of the qualitative data that were developed from the interviews conducted, will be described. As mentioned previously in Section 3.14.1 of this research, all the qualitative data was analysed using a thematic analysis method. This process was carried out using Nvivo 11 software. This software helped the researcher to extract coded results and frequencies, which occurred within the data. All interview sessions were recorded using a handheld voice recorder, with the data then transcribed in Microsoft Word. The interviews data was consistently organised according to each main theme, as planned in the interview draft. A coding scheme was obtained from the participants' responses according to each interview question. This coding scheme was therefore applied to all the interview data, with the responses related to the codes and housed in the parent nodes of Nvivo 11. Then, the analysis was conducted according to the frequency of information which appeared in each code recorded.

The references are displayed via print screen images according to the number of frequencies, and the content is coded in the nodes. All the findings related to each theme in the interview will be clarified in detail in the following section.

##### **4.4.1 The Exploration and Understanding of the Strategic Alliance Concept**

The first theme in the interview focuses on the exploration and understanding of alliancing between the participants, who represent the sample, as described in the previous section. Figure 4-2 illustrates the screenshot of NVivo 11 which shows the nodes related to the understanding of the SRAs concept.

Name	Sources	References
Understanding of the Strategic Alliance Concept	8	50
Previous Involvement in the Strategic Allianc	8	10
No Previous Experience	3	4
Relates Strategic Alliance to other terms	3	4
Understood Startegic Alliance Concept	2	2
motivation of the strategic alliance	8	10
Access to Partners Competences	2	2
Sharing Requied Knowledge	2	3
Reduction Cost Risks	2	2
Sharing Delivery Risks	1	1
Developing Skills of Strategic Alliance Tea	1	2
benefit of the strategic alliance	8	20
Enhancing the Reputation	2	3
Enhancing Safety Abilities	2	3
Quickly Responses to the Problems	2	4
Providing Necessary Resources	2	4
Enhancing the Profit	2	4
Providing Necessary Technology Experien	1	2
Discription of strategic alliance process	8	10
Leadership team, Management Team, Pro	8	10

**Figure 4-2 Screenshot of Strategic Alliance Concept Nodes**

In this theme, there are four questions, with their fundamental idea being to explore the genuine understanding of the participants. Whilst, comparing this with the researcher’s understanding of strategic alliance gained from the literature review. The analysis conducted regarding this theme, concentrated on the following information:

- A. Previous involvement in a strategic alliance for the participants.
- B. Main motivations for the creation of the strategic alliance.
- C. Main benefits gained from entering the strategic alliance.
- D. The participant’s description of a strategic alliance process.

According to the responses for theme 1, **Sources** in Figure 4-2 point out the number of participants interviewed, and the **References** in the same figure indicates the comments or responses which were provided. All the comments were recorded in the child nodes and derived from the responses obtained, as the process of content analysis.

#### **4.4.1.1 Previous involvement in strategic alliance**

In this part, the researcher seeks to explore alliance managers involvement within SA previously. The opinions of those interviewees were variance between there is no previous experience, partially participating with similar strategies and partially involvement with strategic alliance. all these opinions will be provided through next sections.

##### **4.4.1.1.1 No previous Experience**

The researcher investigates to determine the previous involvement of the participants in SA activities. Only 3 out of 8 participants had no previous experience in strategic alliance or in any other type of cooperation strategies. According to the P3 said that *“this is my first involvement of being involved in a proper alliance”*. Meanwhile P1 and P8 agreed that this is a first time they are engaged within highly collaborative strategy, where P1 mentioned that *“to be fair, this is my first experience of it”*. Therefore, those participants as being experts and they have long-term of experience in the railway sector, they realised the differences between the traditional organisational strategies and the new hybrid strategy (SA). This strategy enables those experts to transfer their skills and experience in the same unit and share it to gain successful outcome in the future.

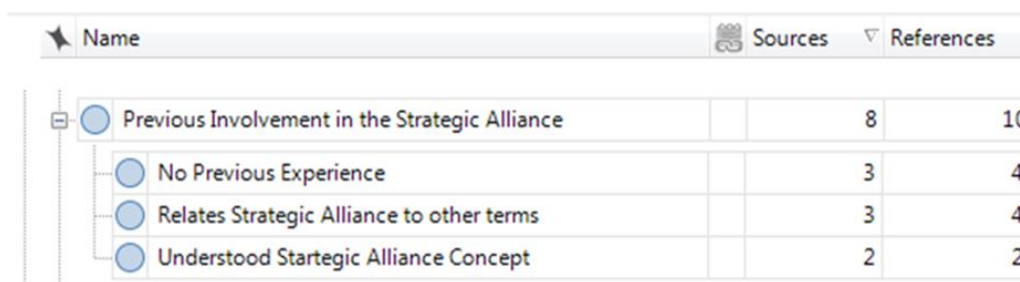
##### **4.4.1.1.2 Relates Strategic Alliance to other Terms**

To determine the level of alliance partners involvement in previous SA, it should be mentioned that 3 out of 8 participants had initially thought of strategic alliance as joint venture and partnerships strategies relates to share the ownership of companies which are participated in the project, rather than collaboration of the resources, knowledges, technologies and activities between multi-disciplinary partners in a railway project which they have been experience with these types, as described by P5 *“I have been involved with joint venture twice, so this is a new experience. I was involved with in early stages, the perception I got from the initial workshops that people should landed together and sharing resources, technologies that lead the alliance toward the success”*. Further, P2 pointed out that *“I have been involved with joint ventures and partnerships, I have been on the edges of alliances, but no, this is my first time”*. Ultimately, the opinions of the alliance participants who involved partially with variety types of collaborations reflected that the nature of SA system is found more sensible compare with other strategies, where sharing everything through the alliance borders can be achieved safely depending on the level of existed trust between partners.

#### 4.4.1.1.3 Understanding Strategic Alliance Concept

The level of understanding the concept of strategic alliance is confirmed by 2 out of 8 participants, where they responded that they have been involved partially in SA before this. The participants that have experienced strategic alliance also pointed out that most of strategic alliance activity that they undergone is conducted non-pure alliances in nature. As described by P6, “*I worked under forms of very non-pure alliances, albeit that’s where this model comes from is an alliance model*” and P7, “*I have had experience of alliances through bidding, which is not specifically an alliance*”. thereby, previous involving of those experts within type of SA facilitate the responsibility of creating trusted environment between partners, as well as the process of integration would be evident, being they are experienced the alliance climate.

According to aforementioned above, the findings of this node can be simplified in the following screenshot Figure 4-3.



Name	Sources	References
Previous Involvement in the Strategic Alliance	8	10
No Previous Experience	3	4
Relates Strategic Alliance to other terms	3	4
Understood Strategic Alliance Concept	2	2

Figure 4-3 Screenshot of Previous Involvement in the Strategic Railway Alliance Nodes

#### 4.4.1.2 Motivations of Entering Strategic Railway Alliance

The participants are asked regarding the motivations of entering SRA, which are analysed in the second parent node. There are 10 responses for this node, showing their impression for the motivations of strategic alliance which can be outlined in the following screenshot Figure 4-4.

##### 4.4.1.2.1 Access to Partners Competences

Regarding to section of the motivations of the strategic alliance, the participants are asked to depict the main motivations of entering strategic alliance as they have experienced it. 2 out of 8 participants assert that they entered SA to obtain benefits of partner’s experiences and knowledge in order to solving the problems and challenges which created by the project. As P7 responded that “*motivation of creating alliance is to get the benefits of underlying competencies of people which can use to solve problems that can happened at the project*” and P5 added that “*we get to share knowledge, we get to leverage off the*



*most beneficial competencies and the most experienced within the group on the particular situation or challenge that we may have*". It should be highlighted that one of the important motivations that Stimulate companies to establish the alliance is getting the benefit of partner's skills and experiences. This way, therefore, enables the partners to acquire new strategies of solving and dealing with problems as well as facing the challenges which can appear in advanced stages.

#### **4.4.1.2.2 Sharing Required Knowledge**

In terms of SA motivations, the participants are mentioned sharing knowledge as a one of the main motivations of creating strategic alliance. 2 out of 8 participants assert that they entered strategic alliance to obtain benefits of sharing partner's experiences and knowledge in order to enhance capabilities of partners to face the problems and challenges which can be accrued in the project. As P7 response, "*...We share knowledge with each other, our process is to share our knowledge to motivate individuals and partners learn new principles and techniques to avoid appearance any problems.*" And P2 "*...Sharing knowledge is important, one of the main things in our successful is sharing knowledge, because it is helping to foster trust and shared identities*". Therefore, the importance of creating SA stems from needs of exchanging experiences and knowledge, where the aspect of sharing knowledge is strengthening the competitive position of the alliancing companies and enhance the confidence of the individuals who are working within the alliance.

#### **4.4.1.2.3 Sharing Delivery Risks**

The participants are asked to portray the motivations of creating SA, 1 out of 8 participants confirmed that sharing delivery risks of the alliance project is critical motivator to entering this SA, P8 mentioned "*We can really deliver the alliance project through sharing the risks and everything considers valuable between partners*", also pointed out that "*we share the risks which can face the alliance delivery, we exchange concessions in negotiations, accommodation and flexibility when partners faces crisis in the alliance*", which indicates that sharing the risks is not related to the final stage of the alliance process, but sharing risk extend through all SA stages, where sharing stage commences from stability of partners behaviours and facilitate sharing information and knowledge to reach the top level which is sharing probable risks and challenges of delivering the alliance project.

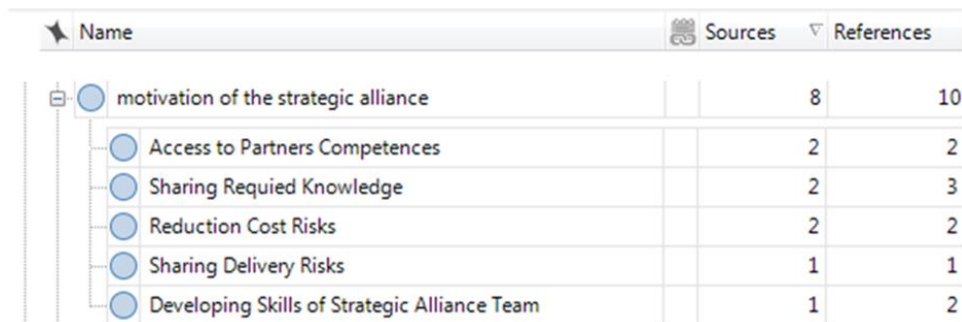
#### **4.4.1.2.4 Developing Skills of the Strategic Alliance Team**

To determine the fundamental motivations of generating strategic alliances, participants are asked to give brighten picture regarding these motivations. P5 added another motivation which can be considered

important for improving the skills and experiences of alliance teamwork, where mentioned that *“Our target of entering alliancing is developing new skills of our employees and work differently than we do when focusing within our organisations”*. It should be highlighted that presence of organisations staff inside the one organisational system long time is waste the energy of their teamwork. Therefore, engaging them within the alliance environment enhance their ability of exchanging skills and experience, as well as they are grown within environment that contain variety of behaviours that can be reflected on their work behaviours in the future.

#### 4.4.1.2.5 Reduction Cost Risks

2 out of 8 participants are supported the argument by adding another motivator to enter SA, where mentioned P6 *“the goal is to finish this to get the job done within a single project target cost”*. Further, P7 respectively added *“So one team is better than four or five individual companies working alone, where working lonely has cost us price of purchasing the experiences to finish alliance tasks, but alliancing together decrease the time and cost of getting the advises from outside of the alliance”*. Thereby, one of the essential causes of entering SA is reducing the cost, because achieving the successful would be better than gain it as separate companies, as well as reducing cost would be reflected on the price of services that can be given to the customers who are using it. According to aforementioned above, the findings of SA motivations nodes can be summarised in the following screenshot Figure 4-4.



Name	Sources	References
motivation of the strategic alliance	8	10
Access to Partners Competences	2	2
Sharing Requiered Knowledge	2	3
Reduction Cost Risks	2	2
Sharing Delivery Risks	1	1
Developing Skills of Strategic Alliance Team	1	2

Figure 4-4 Screenshot of the Motivations of the Strategic Railway Alliance Nodes

#### 4.4.1.3 Benefits of Establishing Strategic Railway Alliance

The participants are asked regarding the benefits gained from entering SRA, which are analysed in the third parent node. There are 20 responses for this node, showing their impression for the benefits of strategic alliance which can be outlined in the following screenshot Figure 4-5.

Name	Sources	References
benefit of the strategic alliance	8	20
Enhancing the Reputation	2	3
Enhancing Safety Abilities	2	3
Quickly Responses to the Problems	2	4
Providing Necessary Resources	2	4
Enhancing the Profit	2	4
Providing Necessary Technology Experien	1	2

Figure 4-5 Screenshot of the Benefits of the Strategic Railway Alliance Nodes

#### 4.4.1.3.1 Enhancing the Profit

Gaining profits considers one of the essential benefits can be gained from strategic alliance; this is what was mentioned by 2 out of 8 participants when they were asked regarding the main benefits of entering strategic alliance project. P2 mentioned; *“it would be nice to say a big fat profit, but twofold really gained from our participating the alliancing”*, and P4 provided *“... You know, blood, money is the blood of every company”*, which indicates that delivering project and achieve successful is the main requirement of companies, but gaining profit is the essential target that all companies seek to achieve it. Therefore, all companies aim first completing the project that will reflect on their market position and profitability positively.

#### 4.4.1.3.2 Enhancing the Reputation

In terms of asking regarding the main benefits can be gained from participating in the SA, 2 out of 8 participants mentioned that SA can enhance the reputation of companies which are engaged within the alliance, which can be fulfilled higher market position then achieving success. As P6 indicated; *“we are here to enhance our reputation in terms of working in this collaborative world”*, and P4 commented; *“they have got a team that has been successful in delivering so it is great for the reputation of the business”*. As these comments clearly illustrated that the participants obtained good expectation regarding the alliances after several years of experience and learning lot of lessons from this SA which can use it in the future business field.

#### 4.4.1.3.3 Providing Necessary Resources

Regarding to the importance of sharing resources between partners of the SA, 2 of the participants commented that sharing resources can be considered important benefit can be gathered from alliance,

where P3 mentioned *“sharing resources is very important. That is very much part of alliance. The alliance operates on an open-book and we experience very little pushback in terms of what would not get shared”* and P5 *“well, we give resources and we give people like me and out of that will be an opportunity for the company to do business in this arena and also innovate and perhaps get involved in things that previously they would not have done in a traditional form of collaborations”*, which indicates that participants impressed by this strategy after beginning with it as being first experience. This strategy is fundamental to fill the gaps of resources and enhance the integration between alliance teamwork. Also, not sharing resources in the alliance will enhance problems of mistrust and conflict between alliance partners.

#### **4.4.1.3.4 Providing Necessary Technology**

One of the important benefits of entering SA can be back to the portfolio of the alliance partners is by acquiring new technologies. 1 out of 8 participants added that, where P8 pointed out *“through the alliancing, we gained ideal way to access new technology without expending resources”*. In this point the importance of sharing the technological capabilities between alliancing companies is appeared, in which abilities of these companies can be improved to targeting new businesses fields and enhancing their competitive advantages.

#### **4.4.1.3.5 Enhancing Safety Abilities**

Determining the benefits which can be obtained from the SA is substantial, where 2 participants mentioned that the safety abilities is important benefit can be gained from the alliancing, P1 commented; *“we have got a very good safety performance in terms of our behavioural safety which I am sure some of the other organisations will take forward onto their next project”*, and P2; *“...we have also done it very safety, so that is another good positive for them”*. Regarding these two comments, it is clearly shown that safety system should be planned, and successful of this system is joined with alliance success, which finally the scenario of that system will be a good experience for companies when they seek to establish a new alliance with new partners.

#### **4.4.1.3.6 Quickly Responses to the Problems**

2 participants listed another benefit which can be obtained from entering SA, P6 and P7 respectively mentioned that responding and solving problems quickly, which considered important benefit by entering SA; *“we have to spend a lot of upfront time in an alliance training and education people to understand the benefit in responding to a problem a certain way rather than in a traditional way”*, and; *“so I guess*

it is breaking down those barriers so when issues do arise, within the alliance we can solve things a lot more quicker when it is involving some of the route asset management teams, the maintainer, we can solve them quicker jointly”. As mentioned in these comments, dealing with issues and problems urgently which are raised within the alliance is crucial, in which reflecting the range the understanding between partners and compatibility through decision making process in order to achieving alliance success.

#### 4.4.1.4 The Participants Description of a Strategic Alliance Process

In this section, the aim is to explain what the participants believe is a SA process and their experiences of it. In general, these participants point out that the alliance contains three layers; each one of these layers has responsibility for setting decisions and follows alliance action implementation. For example, P3 describes, “in a pure alliance model, we have the alliance leadership team, effectively the directors or representative director in this case, from each of the partner companies involved. This level of directors is represented and effectively there for governance type arrangements. Then underneath that you have the alliance management team, the reality is they are doing lot of the day to day leadership as well. So, they represent all the different disciplines and functions and teams. Also, they are responsible in terms of making sure that behaviour is right, the collaboration is right, and there is a set of alliance procedures and policies. Then underneath that level we have the project team, who are effectively the team doing the day to day activities and work”.

This response appears to structure the strategic alliance process as a loop, with all the decisions and procedures being implemented within three layers. Based on revision and sharing knowledge within a democratic environment to deliver the project successfully. The Nvivo screenshot Figure 4-6 includes the findings for this node.

Name	Sources	References
Discription of strategic alliance process	8	10
Leadership team, Management Team, Project Team Levels	8	10

Figure 4-6 Screenshot of the Description of the Strategic Railway Alliance Process Nodes

#### 4.4.2 Behavioural Success Factors of Strategic Railway Alliances

Theme two of the interviews, seeks to identify behavioural success factors in the UK strategic railway alliances. It is important to explore these factors and the number of roles required in delivering the performance of alliances and achieving success. This theme is analysed through one node in Nvivo 11. The following Figure 4-7 is a screenshot of the strategic alliance behavioural success factor nodes under theme two.

Name	Sources	References
Behavioural Success Factors of SRAs	8	276
Trust	8	17
Commitment	8	16
Knowledge Sharing	8	21
Mutual Communication	8	25
Mutual dependency	8	22
Non Coercive Power	8	25
Open to Challenge	7	26
Understanding Alliance Objectives	6	19
Training	6	12
Teamwork	6	13
Aligned Partners' Objectives	6	11
Selecting Right Partner	6	15
Partners' Interaction	6	8
Constructive Conflict	5	15
Aligned Partners' Vision	5	8
Behavioural Accommodation	5	13
Leadership	4	10

**Figure 4-7 Screenshot of Strategic Alliance Behavioural Success Factor Nodes**

The main parent node BSFs of theme two, attempts to explore the main BSFs in SRAs in the UK. All the participants were asked whether they were aware of the presence of these BSFs within the SRAs. It was discovered that all the participants had awareness of, if not all, then part of these behavioural success factors. Although awareness regarding these factors was demonstrated, most of the participants had fragmented information related to them. This could signify one fundamental element, which is that the experience of the railway industry in the UK within a SA is still young. This is because the UK railway industry has predominantly experienced other strategies. For example; joint ventures, partnerships, collaborations and so on. Regarding the awareness of these factors, P2 comments that, *“for me, they set the focus, and the behaviours that come with it. I think in reality the behaviours are a very important part”*. Moreover, P3 adds, *“for me behaviour is very much related to how people interact with one another and the self-awareness of how they interact. I am more than willing to share these behaviours, then you get the trust and communication, and so on”*.

According to these comments, it is obvious that the participants, who represent the alliance partners, believe that behaviour is considered the main engine. As the power of interaction and transparency between the partners determines the success of SRAs.

#### 4.4.2.1 Trust

The first child node of theme two explores trust as a key factor in the achievement of SRAs performance success. As it is assumed that it is one of the most important elements, where honesty and openness should exist between the partners and their teams. The achievement of trust provides a full picture regarding any missing details in an alliance decision discussion. All the participants mentioned trust as a fundamental factor for achieving alliance performance success. For example, P7 argues that, *“you have got to have honesty, and that is at every level, it could be on a day-to-day basis, on the way they are doing the design, but it should all be on the table, there should be nothing under the table, because at some point it will come back. So, it is about being open and honest about the way things are going, and any issues that arise need to be shared with a common agreement as to how they are dealt with”*. While P5 stresses that, *“you have to be open and honest, not hide anything, win-win, or lose-lose”*.

Generally, transparency and truth between partners helps to explore weakness and issues that could occur in daily project implementation. Furthermore, by presenting or disclosing everything, this could prevent negative issues, such as conflict. P4 highlights this issue, by emphasising that, *“if you start hiding stuff, it becomes very obvious, very quickly, which causes friction and then the friction means you are not operating efficiently”*. Moreover, P3 argues that, *“you rely on people to be honest with you. If they are not being honest with you, you are starting off in the wrong direction”*.

These comments indicate that not providing full details to the partners could threaten alliance survival, as personal interests may arise. Therefore, this issue could lead the alliance to termination or to it becoming similar to a traditional contract, with the aim being to serve personal interest more than project interest. As P1 mentions, *“if we do not trust each other then it is for me, not an alliance, because you go back into a traditional client contractor relationship”*.

Notably, two of the participants commented on the relationship between trust, commitment and dependency. For instance, P6 states, *“you need commitment, and that creates the trust of the contract, so there is a dependency that someone is going to be open and transparent, when people have got things wrong, and people do get things wrong, to be open and transparent is part of your behaviour”*. Consequently, the belief of the participants in an alliance framework, and its vision and objectives, will create commitment, resulting in the authorities and roles being followed, as all participants know their tasks and responsibilities. At this stage, the personality of the participants amalgamates within the alliance and become part of it. Trust, therefore, is generated and all the participants can share information and communicate easily.

However, participants will be mindful of sharing anything, if they feel distrust, as P8 explains, *“if I cannot trust you to offer the same information that I am prepared to offer then I may choose not to share it with you. So, my knowledge share is eroded, and my commitment will be eroded. If I do not have trust I do not have commitment from people and all of the other behaviours that you need will be less effective”*. Additionally, one of the participants linked the importance of trust with the level of communication between partners. P4 states that, *“I think having a level of trust and an adult level of communication about what is going on helps alliance success so trust and communication are definitely up there again”*. According to these comments, if trust reaches optimal level, then communication between the participants is constructive and quality would be high. In this phase, informal communication is number one, because all the barriers between the partners are delegated, thereby speed of information would be fast and smooth.

Also, the importance of trust in the acceleration of project delivery received a number of comments, with two of the participants confirming that the enhancement of trust between different levels in an alliance would definitely accelerate safe delivery in good time. As P2 explains, *“the client has to trust us, and we have to trust the other disciplines within the alliance to deliver on time and safely. The client needs to trust us to make ourselves self-assured and regulated”*.

On the other hand, one of the participants mentioned the importance of relationships and building trust between the partners. P5 stresses that, *“relationships are key; as is building that trust and having time to sit and work with people you would not normally work with, understanding them and the organisational needs in the alliance, and making sure that we are getting one consistent approach that suits everybody”*. This point should be considered, as the creation of an alliance is an important step, but the process of making the participants at an early stage engaged and amalgamated within the alliance process is difficult. The process of attracting participants and encouraging collaboration in the alliance is to enable understanding of the regulations, policies, tasks and responsibilities, whilst taking into consideration the different points of view and how clients can contribute within the alliance charter. This stage is imperative, because trust and commitment are created here. Therefore, understanding the opinions of others (in this case, the partners) is considered as one of the essential factors for SA performance success.

#### **4.4.2.2 Commitment**

In the second child node for theme two, the analysis is focused on exploring commitment as a key behavioural success factor of SRA in the UK. All the participants commented positively about commitment being a key success factor and highlighted the importance of it for alliance success. It is directly linked to the acceptance of all the alliance legislations and the participants' commitment to its



ethos, to achieve the actual realisation of alliancing, which means cooperation in everything. As P7 enthuses, *“I think one success, certainly here, is that you could walk through here now, and we have all got one badge on; it does not say who we work for, and you or anybody walking in, you would not know who worked for any company aligned with us, and that is the way it is out there, there are no barriers – everything is an open office, we are not hiding anything, because the only way you will deliver it is through cooperation”*. The main insight here is that although there is a diversity of participant' benchmarks, they respect the sanctity of the alliance they are working in. Moreover, the respect of the participants towards the alliance is fundamental, as mentioned above, the collaboration and acceptance of the participants within the alliance is guaranteed to achieve success.

In addition, P5 explains the importance of commitment, by stating that, *“you have got to be open-minded coming into an alliance. you cannot carry baggage from previous jobs, you have got to wipe all that clean, you have to come to the alliance in a different way. We look like one company, we are one organisation, one bank account. So, we are working together as equals, and you have to have that commitment to buy into it”*. Furthermore, P1 adds, *“I think it is important at a corporate level and I think it is very important within the team”*. While P6 argues that, *“if you are not committed to the alliance, ‘A’ you should not be here, and ‘B’ you will never succeed. To be honest it does not change me as a person on any project, you will still have the commitment otherwise the project would not succeed, and neither will you. Commitment is everything really and I expect that from my whole team, if we have committed to deliver this project and committed to do X, Y and Z, then that is what I expect, and, in some respects, you have got to lead by example on that”*.

These statements indicate that the importance of commitment lies in sharing everything that would help serve SA performance success, whilst not using the alliance as a tool to achieve personal benefits. In addition, participants should be aware that they are working within one community, which has one goal, thus the parties should have a similar impression regarding what they need to achieve. Although, one of the participants emphasises two different commitment levels; *“I think there are two levels of commitment; one level of commitment is to the ethos of the alliance, and the second one is a commitment to getting the job done”*. According to this comment, if the participants believe in the alliance process, then their aspirations are engaged with the alliance goal, therefore during the project they are committed to performing their duties in the right way. Importantly, the first stage of commitment begins as a tacit belief through the alliance vision and goal. While the second stage demonstrates as explicit commitment, which is reflected by the exchange of trust between all alliance players.

In alignment with this explanation, two of the participants mentioned a strong relationship between trust and commitment as one of the keys of SA performance success. For instance, P2 reflects; *“back to trust, it is kind of engaged with trust, is it not? I see that ultimately, you are committed to the end game, which is the scope and getting it done in time and the money”*. While P6 states that, *“you need the type of commitment, that creates the trust in the contract and between the partners as well”*. These comments show how necessary the presence of trust and commitment is between the partners, as these factors help to increase interaction via the alliance, then all the jobs and duties can be done in time and without added costs. However, a reduction in costs reflects that all the partners share their experiences within the alliance and provide advice, which can achieve alliance success.

Nevertheless, commitment can be related to dependency, where the partners cannot rely on each other if they are not committed to the alliance. For instance, one participant states, *“it is part of commitment, dependency is commitment for me, so I can depend on you because I know you are committed. But I struggle with the difference between dependency and commitment, because I have to depend on you to commit. So, I am depending on you to have commitment to me”*. These responses reflect the relationship between dependency and commitment, as committing to the alliance charter would illustrate the level of loyalty to the team. Loyalty shows the desire of the participants to exchange dependency such as resources and knowledge with each other, to deliver the project on time. Otherwise, an alliance can be terminated, if the alignment shows that the participants have not shared what they were expected to. If this occurs, all the participants will lose the outcomes that are supposed to be gained. For example, P3 explains, *“if you do not have everyone aligned and working together, then you will end up with either fewer valuable outcomes, or worse than that, the realisation that you cannot depend on them. So, you withdraw, then stop being so dependable and you end up with just a bad product at the end of it because you did not commit, and they could not depend on you. So, you come up with an inferior solution, which ultimately costs more money. Or if it is a safety issue, it could hurt people”*. The main idea that can be extracted here, is that dependency is one of the most important stages for SA performance success, as it is dependent on the participants, who illustrate the extent and level of trust which has been built. These factors can be represented as a chain, where one cannot ignore each part, as there is a responsibility towards keeping these factors working together. This is related to how the leadership team within the alliance can minimise the distances between the partners and affiliate their objectives with the alliance goals. At this stage, setting the alliance orientation first requires an understanding of the partners’ requirements and objectives, thus making the alliance duties explicit to reach optimal dependence among partners.

#### 4.4.2.3 Knowledge Sharing

It is widely acknowledged by all the interviewees that knowledge sharing is considered as one of the most essential factors that leads to SA performance success. The importance of this factor derives from the exchange of effective information and technologies, which serve partners to overcome challenges facing their businesses when working alone. According to P7, *“we do have knowledge sharing. In terms of the technical delivery, I think it is important that we know what each other does. I do not think it is important that we know the detail, but I think we need to know generally what goes on in their worlds, and what is important to them, and what risks are high in their world and where the opportunities are”*. P5 confirms this, *“knowledge sharing. I mean we wanted to go away from this project with knowledge of signalling and track, but we won’t go away with in-depth knowledge, we will know a bit, but that’s about it”*.

According to these comments, sharing knowledge between partners does not result in participants knowing what is going on in their partners’ world. The main aim is that it decreases the time for finding solutions to problems and accelerates the time of delivery. At this stage, filling in the gaps created during individual businesses are the most important, as the adoption of an alliance strategy enables these disparities to be overcome. Notably, all the participants are aware that tacit knowledge is critical to share, especially if some problems have occurred through the implementation of the project. This knowledge is considered as exclusive for the companies, and an agreement is required to share this type of knowledge and to solve a specific issue. Therefore, sharing knowledge within daily work is explicit knowledge, which means that the important information is used to achieve daily fulfilment. This point is supported by P1, *“whenever it comes to anything technical, engineering-wise, there is no point in keeping any secrets, holding anything back. That’s shared information. We use ProjectWise, so all our drawn information, everything, all our files, all our documents get stored on there. Not just the engineering stuff but commercial and what have you”*.

This statement indicates that the use of technologies during the transfer of explicit knowledge, which is related to daily implementation, is important as it enables others to comprehend what is surrounding their businesses and illustrates the extent of transparency in the project environment. Another importance for sharing knowledge, is that it demonstrates via lessons learned and experiences, what is considered crucial for alliance success. Six of the participants insisted that sharing knowledge represents lessons that can be learned and offers an opportunity to increase the participants’ experience through the application of another alliance project. For instance, P5 comments that, *“in terms of the scheme, what I would say is the scheme’s been a fantastic opportunity for people to learn because it is a big scheme, a huge scheme in terms of interfaces, so a lot of people out there have not had that experience, and this has been one of*

*those projects where you do*". Additionally, P6 recommends that, *"the alliance partners that are moving away from here, they should take the opportunity to take their learning away from it, so that's where I have put it on the positive side, take the opportunity to get involved, take the opportunity to take your lessons away with you, because you are going to have them for the future"*. Also, P3 adds that, *"I think formally we are going to have a knowledge sharing session, but I also think the real knowledge people have gained is from working alongside each other for the last three, or four years. You will pick it up day to day from being sat alongside someone. What you gain from working alongside people expands your own personal development and will help you in the future or might even help you in the later stages of the alliance"*.

In alignment with these responses, alliances are a good field to obtain experiences, because any decision or wrong action will reflect on the participant's behaviours, resulting in lessons learned that could be avoided in the future. Furthermore, these lessons are considered advantageous as partners can start their new businesses and alliances with other partners and share this knowledge. Therefore, all acquired experiences will benefit all partners, as well as avoiding costs that could be explicit in the first stages. Furthermore, lessons learned are important in supporting the companies' market position and reputation, as all companies working in the same field will seek to engage with them and create alliances to gain benefits from their experiences. Indeed, sharing knowledge is a critical element to enhance alliance success, whilst openness and trust are the main motivators to sharing knowledge smoothly. As mentioned by P7, *"if you have got the trust in the people you can usually tell when people are struggling to make a decision and it is like, 'talk about it, let's talk about it', and you have got to have that sort of culture. I think sharing knowledge, sharing issues and what have you, it backs up the transparency that we all need to share, so that our behaviour is that of openness and being transparent"*.

This statement illustrates that the sharing of knowledge is not just related to exchanging tacit and explicit knowledge, but also sharing issues and difficult situations with partners through a trusted environment to develop relationships and reach the right decisions together. So that transparency is important to make partners satisfied with each other by sharing important information related to alliance implementation, hence increasing the partner's value. As P6 comments, *"we all know that if I am going to share something with you, I am also allowing myself to be open to your value increasing and my value not decreasing. So, can I trust you to tell me everything that is a potential problem in this solution or not?"*. While P2 points out, *"with tacit knowledge, you will only ever do that if you trust each other. If I do not trust I won't share. They might think its level of worth is a lot less, but I won't actually know that until I share that with you and you go, 'that's invaluable to me'"*. According to these comments, the fundamental

point to consider is that trust is a critical success factor, which works to move all the factors within the same loop, as it is the main underpinning for SA performance success. Sharing knowledge cannot be worthwhile if trust does not exist between partners, as well as a desire, which is determined according to the level of openness and transparency, of others to share knowledge.

Conversely, P4 mentions that sharing knowledge is a way of developing communication between participants, *“knowledge sharing, for me, comes back to communication. So yes, you need a level of knowledge share at certain levels to report in a way that’s transparent so that people can understand the procedures”*. This comment demonstrates that the main formula for successful knowledge sharing is strong communication through the alliance levels in specific communicative situations, because face-to-face meetings and the running of lunch sessions would enhance trust among all the participants and their behaviour would be explicit, thus the process of sharing knowledge would be beneficial and worthwhile.

Finally, two of the participants focused on their capability of sharing knowledge to develop competence and efficiency. For instance, P7 states, *“I suppose I need to recognise that one of my responsibilities in sharing knowledge is not just sharing knowledge with my peers, but also making sure that I develop those that are coming through, to make sure they are competent and capable of doing what I need them to do”*. While P2 explains that, *“the only way of having improvement, that curves around behaviours, efficiency and the running of an alliance, is to get around learning, making things better, looking at how you can improve, implementing it and putting plans in place”*. Through these responses it is possible to assume that another target to sharing knowledge is the development of capacity and the improvement of the capability of the participants at different alliance levels. To enhance implementation strategies and the behavioural guidance of the partners appropriately, it is essential to absorb as much experience as possible by communicating with others and learning new skills and strategies to achieve project success.

#### **4.4.2.4 Mutual Communication**

Mutual communication is considered as one of the key success factors of SRA. All the participants agreed that communication is important to guide the alliance to success. For example, P5 reflects that, *“you have got to get communication right and that’s what is key to me, so tell people what you are doing, keep them up to date with things, get regular communications, newsletters out there. People just want to know what’s happening”*. While P3 states, *“it is important that communication remains positive, if not it has got to be genuine”*. The main of purpose of creating an alliance is to exchange opinions and knowledge and avoid implementation problems. Thus, keeping participants up-to-date with developments, will help raise

awareness regarding environmental changes and make the right decisions in the right way. Consequently, communication as a tool works to provide information related to challenges which surround the alliance process, as well as updating daily progress, where this type of information flows from top to bottom at the alliance levels.

Timely actions can also be taken, as P2 explains, *“we have a lot of good people at individual level in this alliance, I think good communication pretty much comes with it”*. Therefore, selection of the right partners is fundamental, as trust needs to be generated directly. If someone has chosen wrongly or started behaving negatively, this could lead to frustration. This fact was highlighted by three of the participants. For example, P6 points out that, *“if it is informal that’s fine because it comes back to trust. The only reason why people generally make things formal is because they do not trust”*. Whilst, P3 assures that, *“communication is not about the need-to-know but about what is important that you need to know that I need to tell you and vice-versa. So, I think having a level of trust and an adult level of communication about what is going on helps success”*. According to these comments, existing trust between partners is key to sharing knowledge smoothly, as well as the nature of the way of transferring information among participants being determined according to the level of trust between them. This means that whenever the degree of trust between participants is high, formal communication in sharing information will be less important. Communicating for example, by e-mail, formal meeting and video conversation would be limited, because directing the partners' objectives towards the same target will enhance the principles of collaboration and commitment to the strategic orientation of the alliance.

In alignment with these arguments, four out of the eight participants confirmed that although formal communication is important when discussing project development between clients or the leadership team, informal communication is still the main method. This helps participants at various levels of the strategic alliance to solve daily issues and follow up on actions that have occurred. This is mentioned by P4, who argues that, *“informal communication is key, certainly face-to-face, I think, is the key way to manage things and emails and video conferences are absolutely the wrong way to do things. As everyone is here, sat on this site. All the people that are going to help me to deliver the job are here and that’s really important”*. Also, P1 states, *“we are in a co-located office here, so in terms of verbal communication, meetings and all the rest of it, are absolutely fundamental”*. The main benefit of informal communication is that it does not need preparedness for meetings or conferences, which require official times and expenses. Secondly, the exchange of discussion does not need formal preparation of words. Finally, this would result in a reduction of time spent for problem solving as informal communication between all the

participants could take place whilst walking around the offices and discussing the issues without the need to record them.

As P6 asserts, *“it always has to be informal. You want it to be informal because as soon as you make it formal you make it protracted and longer to reach the solution”*. Further explaining that, *“I do not need to have a whole raft of formal communication. I have informal communication to get to the solution. Then I have to formalise it. What I do not want to be doing is having formal communication until I get to the solution”*. This indicates that seeking problem solving in terms of informal communication, results in an agreement being confirmed, then decisions and actions are agreed, which can be translated into formal instructions. Furthermore, P3 and P1 agreed that communication is a key success factor, which helps the leadership team inspire visions of the strategic alliance and the requirements that should be covered by sharing ideas with other partners to reach appropriate agreement. This is mentioned by P3 who believes that, *“communication is probably even more important in the alliance as it is important to set the vision. If there is change then that’s typically when you know as a manager or a leader, you need more communication”*. While P1 adds, *“so we create our alliance charter, which is around the principles we have, in terms of how we make decisions, the visions we have and behaviours”*.

After agreement has been reached about the expectations of what needs to be achieved in the coming term, the role of communication demonstrates the nature of SA within the external environment. This responsibility is determined through authorised alliance identity which can be considered as ID for all companies that are aligned together. This identity shows the role of the alliance for the companies which are working in the same industry, as well as serving as brands if they are integrated with other companies in the future. As P4 illustrates, *“the branding was another key bit of the communications as well. Creating that one identity, which was really important”*. P5 adds that, *“we need that one identity. We do not want to be seen as different organisations and we need one which is our alliance identity. So, communication is really important for that”*.

Consequently, the importance of communication can be demonstrated in two stages. Firstly, the strategic stage which indicates the provision of knowledge that is considered important in the decision-making process and the completion of alliance actions. Secondly, the organisational stage which refers to how the organisations are aligned together and have gained benefits from this alliance in terms of reputation, market position, knowledge and so on. Through these stages the needs for establishing a typical communication system to achieve efficient results are determined.

#### 4.4.2.5 Mutual Dependency

To achieve SA performance success, mutual dependency should be considered, by recognising the amount of reliance that the participants draw from the alliance tasks and requirements. This type of preparation provides a fuller picture regarding the formulation of the alliance vision and the establishment of trust, commitment and sharing at all levels. In this time, the principles of these elements in general and the dependency principles specifically will be generated, thus the delivery of the SA performance will be successful. In terms of the participant interviews carried out, all of them confirmed that mutual dependency is one of the essential factors, which leads alliances towards success. For example, P1 explains the importance of this factor, *“dependency is very important in the early stages, what we do quite a lot of is try and work out what everybody needs from each other and it very quickly draws a picture of how dependent we are on each other”*. While P4 illustrates the importance of dependency through the extent of understanding that the participants have towards the strategic goals of the alliance. As it is the main target, where they seek fulfilment. P4 states that, *“dependency, depends on how you view the word. I would probably say it is about understanding what the strategic goals are. So, does everybody understand what the strategic goal is? This comes back to communication”*.

Furthermore, the shape of dependencies within an alliance and the role of it in developing achievement strategies was mentioned. P1 adds, *“so a lot of the thinking about what the dependencies are and what we could get from each other, as well as what we needed from each other, was done in tandem with the development of the strategy”*. According to these comments, the main point that should be investigated when creating strategic alliances is the selection of the right partners. As this is a critical stage, which will affect the success of the project, the process should be long term. During this time, the selection of the right experienced partners, will contribute towards formulating an alliance vision, and then the responsibilities will be determined. By specifying the responsibilities, the trust, commitment and desire for sharing knowledge will be revealed, as well as the dependency principle being generated. This is because openness and transparency are demonstrated at the first stages and clear communication means the quality of information that is provided to the participants at the early stages enables expectations to build regarding the coming stages. At the same time, it enhances others to provide advice, and that is the main principle of mutual dependency, which is to rely on the partners to obtain tangible and non-tangible resources.

In terms of the relationship between trust and dependency, seven out of the eight participants assured that building trust is an important element that motivates other elements to be realised. P5, P6 and P7 all agreed to this point respectively. For instance, P6 believes that, *“dependency comes to a sort of build-up*



*of trust, if you end up trusting somebody, you ask them to do something and then they do it and you depend on them to do it and that's all part of the equation that builds up to this element of trust which makes the whole thing successful*". Whereas, P2 provided another explanation for the relationship between trust and dependency, *"as long as you have an understanding of what they are, and there is trust and there is a willingness to ensure that it happens, to enable somebody to do what they need to do. So, in that time they can rely on each other"*. The main points that can be understood from these statements are that by providing clear objectives of what the partners need to achieve from the alliance, these expectations will help others to understand the requirements. This will also enhance the relationships and they will be committed to everything that is needed to succeed. Therefore, to achieve the dependency principle, alliance partners should work as a team. P5 highlights this, by stating, *"we have an integration team, an integrated planning control team, and an integrated safety team, and none of us knew each other when we first started, so we have grown together. We have got to know and trust the people we work with and we depend on those people"*. Meanwhile, P2 believes, *"everyone knows what they are here to do, and everyone trusts them to deliver it, so the dependencies are key"*.

This indicates that the first stage of the alliance commences with the revealing of the alliance's vision and the observation of the satisfaction of the partners regarding what is applied, this satisfaction will establish trust and commitment behaviours. Usually at this stage, the partners dependence on each other is still limited, because as mentioned previously, trust is in the birth stage, and in order to fulfil positive dependence in alliance management meetings there should be a democratic environment in terms of decisions decided upon, that speed up the delivery of daily jobs. These arguments insist on the role of communication at this stage and the level of quality of information which is delivered, because the power of achieving a dependency strategy relies on the amount of knowledge which is shared between the partners. Moreover, two of the participants proposed that dependency is part of commitment, where participants cannot reach the solutions of typical problems if partners cannot rely on each other to discuss these issues and resolve them. For instance, P6 mentions that, *"it is part of commitment. Dependency is commitment for me, so I can depend on you because I know you are committed"*. While P4 confirms that, *"if you cannot depend on each other and you are not committed, then you are not going to come up with such a great solution"*. According to all the opinions mentioned above, SA performance success is determined and based on the type of behaviours used inside an alliance, as well as the degree of interaction between partners, which are considered the main properties of achieving a successful for SA performance.

#### 4.4.2.6 Non-Coercive Power (Democratic Power)

As the research progressed further and focused on the behavioural success factors of SRAS, it found that power is one of the key subjects, which should take priority. Within the context of the UK SRAs, a limited amount of studies investigates this factor, even though it is considered a fundamental engine in the alliance success process. Notably, all the participants confirmed that non-coercive power is one of the essential motivations of alliance performance success. This is accomplished through the distribution of teamwork spirit and the importance of considering the opinions of partners at every stage in the alliance, without forcing acceptance or using threats to implement the core alliance strategy. This is explained by P7, who defines how leadership teams in an alliance use power to push others to engage within the decision-making process. P7 explains, *“I suppose as an alliance management team, we show that we have the power, to be decisive. I think if you were showing the power as an individual and ignoring everything else, then I do not think that would work, but you have got to be shown to be powerful in terms of being forceful in decision making. So, as a team yes, as an individual no”*.

Moreover, P6 demonstrates a similar perception by stating, *“I can challenge, but we have to work together to reach a unanimous decision. It is part of what the alliance is about. All parties have to agree. It is part of the cornerstone of an alliance. You are never going to do that by a dictatorship”*. According to these comments, the decision of creating a strategic alliance, gathers all the parties under one roof, thus living in a cooperative environment. However, it does not mean applying individual decisions to force others to obey. It is important to share perceptions and reach agreements, which are the reasons for the achievement of trust and commitment principles. Sharing thinking between partners enhances the environmental democracy and improves efficiency in the spirit of teamwork. However, the negative side of using coercive power is the increase of conflicts among partners, whilst changing desires towards delivering the project and achieving success. The dark side of the negative behaviours will then occur for example, disagreement, opportunistic behaviours, tensions and so on. At this stage, the role of a leadership team should be explicit regarding how they can gather partners' perceptions, which are targeted to be achieved. As P5 mentions, *“if we use our power as an alliance, as a team, as a collaborative team, I think it is from the nature of the work, but the power is the leadership and it creates the environment, giving people tools to do the job. While the team respects that power because they are there to enable that environment for themselves, so there are two aspects of it really”*. The main comprehension gathered from the opinions given is that using authority in a leadership team does not mean forcing others to implement it. Instead a clear vision of the alliance future, allows a clearer picture for those involved to be drawn, whilst taking into consideration the partners' rights for sharing and applying plans or objectives, in a way

that allows delivery of the alliance without any losses. This is confirmed by P3, who comments that, *“there is nothing wrong in spelling something out in a strong way, not a dictatorial way, but saying this is where we are trying to get to, my own way of operating as the leader of an alliance and my own approach was very much not dictatorial or coercive”*.

Furthermore, three participants confirmed that empowering partners at different levels of the alliance is extremely important, as it helps to obtain a wide range of opinions and suggestions regarding issues which could occur at any stage of SA implementation. As P2 points out, *“empowering people, and democratic power, if that’s what we want to call it, is very important, but for me it is about empowering the individuals who can make those decisions and lead within the APT, making them accountable, and saying, ‘you do not need to come to me for that, that’s you’. It is very important”*. This is confirmed by P8, who explains that, *“there have been issues, but we have sat down and resolved them at AMT level and we have agreed what the outcome should be, and it is not necessarily in line with what one of the partners wants to do, but it is the majority rules”*. As indicated in the previous comments, empowerment is considered one of the contemporary strategies used by organisations to resolve the challenges internally and externally. This strategy is grounded in giving the participants the right to deal with these challenges, because the leadership level sometimes requires consultations from all other organisational levels. This priority represents that there is always friction with issues in long term businesses. Therefore, responsibility is carried out by the staff and it puts them in a position of accountability, as well as making them an efficient part of the organisation, resulting in solutions becoming easier to find. As P1 asserts, *“...enough empowerment to say, actually, it is the right thing to do, it is the right principle, we have come up with some solutions, we have found some ways of dealing with that”*. Additionally, P3 recounts, *“it will only work if people have got the opportunity to democratically voice their opinions and I welcome people voicing their opinion, disagreeing, etcetera”*.

Consequently, spreading the spirit of a democratic environment between all alliance levels to discuss requirements and issues, will enhance the spirit of the trust and ensure the participants are committed to achieving positive results.

#### **4.4.2.7 Openness to Challenge**

To achieve SA performance success, seven of the participants specified that challenging the opinions of others in the right way and positively is important. For instance, P1 comments that, *“challenge is the most collaborative behaviour”*. While P3 praises challenge by stating that, *“it is the single most important thing”*. In addition, P7 explained the importance of this factor, by postulating that, *“although we do have*

*challenge, you can be challenged and that's different. It is not so much a trust issue, because one of the behaviours is challenge, so just because it is an alliance does not mean to say I cannot challenge you over something if I do not believe in what you are saying".* Subsequently, it is possible to surmise that challenge is always around businesses, and to achieve survival within this changing environment, there is a need to challenge ideas, to confront negative issues. One of the fundamental ways to fulfil the opinion challenge (positive challenge) is a brain storm, which can be considered as one of the right ways to discuss opinions in a decision-making meeting, to reach the right decisions. This argument is supported by P6, who states that, *"challenge is a conversation with other partners to achieve the right outcome and 'if you do that right then you build their respect', so it is not a dispute, it is not an argument, it is just a challenging conversation and I think that's what comes out of collaboration"*.

In alignment with the previous opinion, the core to establishing SA is discussion of the strategic orientation of the collaborative organisations. These perspectives may carry with them fear of the competitive environment, so a decision can be considered, and the role of the leadership should be to allow others to participate within this matter. Consequently, this would enhance capability of obtaining fresh ideas and experiences, which could then fulfil the targets in the long-term. This is confirmed by P6, who argues that, *"as leaders, it is the environment you create, so you have got to create an environment where people strive, where you inspire people to go and do the work, to take on the challenges and I think we have done that well through the integrated teams that we have here"*.

In this time, the leadership should present a democratic climate in the meeting room, working as a team successfully to overcome the problems and achieve resolutions. These climates will encourage the generation of ideas, as well as to enhance knowledge sharing across a positive communication channel, which would serve to deliver a successful alliance performance. This is mentioned by P2, who explains, *"it is more about that next level of communication, which is how you challenge in the right way, and how you receive it, then respond to it"*. Hence, a purity of communication and the quality of information being transferred, are considered motivations towards the achievement of positive challenges between partners. Furthermore, two participants suggested that challenge is trust or a part of trust, with the openness and honesty between participants representing a foundation to build positive challenges. As P4 states, *"then you start to share. You start to be open and trust each other. So, challenge is good"*. While P5 believes that, *"I might think something is right because I have trusted somebody to do it and then I get challenged from my own organisation, but I trust challenge"*. Meanwhile P2 comments that, *"if I am not being open, I will carry on not being open until you challenge me. I may not even realise I am not being open. Yes, if you do not trust me for a reason, there is something that I am not doing that's stopping you trusting me,*

*but you need to challenge me and vice versa*”. Existing trust among the participants allows communication and brainstorming in an informal way, which means that arguments and the refusal of some ideas does not necessarily result in negative conflict. In fact, all the comments can be used as amendments to correct the way of the SA implementation.

This point is further clarified by P4, *“conflict is different to challenge. If I challenge, I can improve, but I must do it in a respectful way, whereas conflict is when I am absolutely disagreeing with you. But if I challenge in the right way then that’s a good thing”*. Therefore, negative conflict is different from a challenge, where conflict is often generated when someone, for instance, enters an alliance and has opportunistic desires to acquire invaluable tacit knowledge. Then, features of conflict will show and might lead to the termination of an alliance in the end. While challenge in a constructive way, to modify some ideas, could affect the alliance outcomes positively. An example of positive challenge is described by P7, who states that, *“challenge is healthy, but conflict as a word is negative, because that says to you ‘we are at war, or we are battling, or whatever else, doesn’t it’? But challenge in the other way, for me, is healthy. If you challenge in a positive manner as well, because that can lead to positive conflict”*. Participant behaviour is considered as a determinant for SA performance success, and the role of the leadership team is considered as inspiration, to achieve optimisation. Thus, the integration of both behaviours (participants and leadership) will enhance the responsibility of choosing ideas or suggestions that would prove the most beneficial for all.

#### **4.4.2.8 Understanding Alliance Objectives**

Interestingly, six participants highlighted that an understanding of partner behaviour and the alliance processes is the most important behavioural success factor in SRAs. An example of this is a response by P3, who states, *“understanding the alliance concept and that you are in it together, and that it does not magically just happen is crucial”*. To explain this further, the alliance concept is divided into two sections. Firstly, organisational understanding; which means that in the first stage, all the staff should understand the aim of creating a SA, including what its purposes, objectives, targets and requirements are. This is because the participants come from various organisations with different cultures and systems. Secondly, behavioural understanding; which indicates forward planning to understand the different beliefs, customs and traditions, which can then be considered in the preparedness of the alliance vision and objectives. In relation to the first point of organisational understanding, P4 points out that, *“everyone should understand what the strategic goal of a strategic alliance is, this comes back to communication”*. This point is further elaborated by P6 who asserts that, *“we all have different business models and you have got to understand that they are quite important as well”*.

On the other hand, P1 and P2 both provide a different viewpoint. P1 argues that, *“everyone should understand the process by which the report comes together. Reviewing and understanding alliance processes, are key ingredients”*. While P2 contends that, *“more effort needs to go to the front end to ensure that you are doing something that’s best for the alliance, that should be understanding the systems and processes, spending this amount of effort and time to make sure that you have a full understanding of the right systems in place”*. Accordingly, at the preparation stage of a SA, especially when formulating the alliance priorities, the leadership team should be aware that not all partners are experienced in the processes. It could be that their business model is established to achieve business, but it is not appropriate for strategic business. This is when a configuration stage should start, to follow up the businesses of the aligned organisations, seeking to correct strategic workflows, prepare workshops and provide training sessions, that can aid modification of the partners’ strategies. This suggestion is clarified by P3, who suggests that, *“people need to understand what it is they are getting in to. It is key to spend the upfront effort explaining this, taking time away from the day job, having training sessions with professional people, who understand the end game, who can bring people along, get the commitment and then once they have got it, they will help bring everyone else along with them”*.

The comprehension of alliance priorities for partners at the initial stage will facilitate the implementation of the alliance process. Also, any costs of training sessions and workshops, will be reimbursed by the benefits achieved in the alliance outcomes, where the level of awareness of the participants for the issues covered would be high. Crucially, these training sessions will integrate all the participants, from a variety of organisations, ultimately enabling introductions and the sharing of cultures and habits. Therefore, an integration of behaviours will be present, which is the main axis of behavioural understanding.

This second branch of understanding is described by P5, who asserts that, *“relationships are key and building that trust and having time to sit and work with people you would not normally work with and understanding them and their understanding of organisational needs, whilst making sure that we are getting one consistent approach that suits everybody is critical”*. Moreover, P3 points out that, *“if that guy over there is having a problem, this means you are having a problem too. So, it is getting everybody’s behaviours right, so they understand we are all in it together and what the right behaviours are”*. Hence, the encouragement of participants to be integrated is fundamental, so that the principles of trust and commitment can be generated. All the barriers which appeared in the first meeting will be demolished, as well as the individuals’ behaviours becoming more refined by mixing with other partners. Furthermore, the participants are not able to realise the needs of the partners without engagement and communication.

According to the behavioural theory, nobody can say what is inside another person's mind unless they are close friends and have a relationship with each other. In addition, P6 focuses on the differences in culture, *“recognising the different cultures is the main skill, people skills are really important in an alliance, so as to understand the culture of the different organisations and people within them”*.

Important organisational skills are not just determined by practical ability, but also by relationship skills. These competences cannot be achieved unless there is an understanding of the perceptions of the participants working closely with each other. Consequently, the development of understanding skills for both behavioural and organisational competence is an essential strategy, that can shift SA towards gaining opportunities and the avoidance of rejecting the correct SA principle.

#### **4.4.2.9 Training**

It is widely known that training is considered as one of the key behavioural factors, which can be conducted at all stages of the implemented strategy. The importance of this factor is the exchange of experiences between participants who are highly experienced with those who are less familiar. An exchange of these experiences can help aid understanding in areas such as facing challenges and the strengthening of relationships between the partners. Six participants described training as one of the fundamental factors, that can help to achieve SA performance success. For example, P1 stresses that, *“well facilitated training is not about retaining everybody, but it is about making sure that everybody understands that”*. While P2 adds that, *“it is about having the right level of training. The right level of time and effort spent on making sure that happens. It is not just about training. It is about making sure that effort has gone into maintaining and increasing the focus of it”*. The main purpose of training is the rehabilitation of staff by regenerating capability at work. The unification of participants' skills, specifically in the first stage of creating the alliance should be substantial, as it helps the generalisation of experience between the participants. It also illustrates the responsibilities, as well as aiding communication and ensuring that the tasks within an alliance are received and understood. In association with these arguments, P3 confirms that, *“really with the training that we had and what we were looking for and what we scored people on, this worked effectively during the strategic alliance process”*.

The preparation of the main conditions of training, for example the mobilisation of efforts, the materials for the workshops and sessions and the selection of appropriate times to run training sessions, are all considered crucial features that will enhance the opportunity of alliance success. Also, the availability of these features and the right selection of partners is reflected in the development and level of awareness of the participants. For example, P5 explains, *“so part of the training that we did for people*

*was to make sure that they had self-awareness. Self-awareness of people's behaviours were key, and you can see all the stuff we have got on the wall about it". In addition, P7 focused on the role of training in developing the behaviours inside the alliance, "going through the workshops, you develop those behaviours, we all feed into that what we think the right behaviours are to achieve success".*

This information indicates that training can be classified into two types. Firstly, formal training, which refers to workshops and training sessions conducted at appropriate times. This type requires a preparation stage and could be costly because usually highly experienced consultants conduct them. Secondly, informal training, which refers to informal meetings such as visits inside the site during lunch breaks, this type of training facilitates the exchange of knowledge and experience between staff at the same organisational level and realises the aim of the strategic alliance in an easy way, as well as encouraging the strengthening of relationships. P6 provided further information about informal training, *"I can certainly remember the knowledge sharing training session, the lunchtime sessions, and I could get hold of the presentation used after it. So, it helped to share our experiences, not just knowledge, but it is experiences here, with everybody else, and you never know, it probably saved some money somewhere along the line"*. Training can aid the participants' comprehension and encourage commitment to the alliance, the importance of these factors is described by P2, who reveals that, *"people need to understand what it is they are getting in to. So, I think it is key to spend the upfront effort explaining what alliancing is, taking time away from the day job, having the training sessions with professional people who understand the end game, who can bring people along, get commitment and then once they have got it, they will help bring everyone else along with them"*.

Consequently, acquiring experiences through training may not result in the participants being highly experienced and avoiding all implementation problems, but it could improve their skills and reduce the possibility of facing implementation risks. In addition, focusing on the aim and purpose of the alliance enables employed staff to understand and feel trusted and committed, which will positively enhance the outcome and achievement of the targeted goal.

#### **4.4.2.10 Teamwork**

To gain a competent SRA, the principles of teamwork should be inherent. As mentioned previously, demolishing the traditional ways which affect the procedures of the alliance is important. The main question therefore, is how to establish the principles of a teamwork strategy. Six participants mentioned the importance of a teamwork element and how it can lead the alliance to success. While four of the participants explained the significance of teamwork within the alliance. For instance, P8 states that, *"from*



*a personal perspective you need to work together in the alliance as a team*". While P4 adds that, *"we have got a really good set-up now but yes, the key is all about being in one place, so one team"*. Bringing all the participants together and making them work closely under an alliance umbrella is not easy, so achieving the aim of teamwork commences with the containment of the participants and an attempt to approximate the distances between them through understanding of their points of view. This understanding cannot be achieved unless communication in the early stages is clear and the transfer of information is honest, because this will enhance trust and commitment from the beginning. P1 confirmed the role of clear communication as key to the achievement of teamwork principles, by recommending that, *"communication and the transfer of data should be improved as soon as possible in order to achieve teamwork principles between the team"*. Additionally, P3 suggests that, *"you have got to have a core part of the teamwork principles, that really gets and understands the essence and can bring everybody along with them. Then after those two things, really for me success is down to some of the more traditional types of things on my project"*.

Furthermore, two participants explained that the importance of teamwork stems from integrating teams together, which means eliminating all the barriers that will affect the SA performance success. For example, P4 responds, *"so, I need to deliver. You need to deliver. He needs to deliver. We need to deliver together at different times doing different things"*. While P7 indicates that, *"one success, certainly here is, you could walk through here now, and we have all got one badge on; it does not say who we work for, there are no barriers, everything is open, we are not hiding anything, because the only way you will deliver is through cooperation"*. The core of teamwork spirit is working together like a chain, with all the tasks completed one after another, and the consolidation of a mutual dependency principle between staff is apparent, as well as a democratic environment, which facilitates the exchange of opinions easily. As highlighted by P3, who explains that, *"you act as one team, then a sub-team in it, because everybody is aware of the mutual dependency, all the jobs should finish by 4:00pm, it comes back to the understanding of what an alliance is, what everyone is buying into. They are buying into one team like a football team, if one does not perform, the others need to step up and help them out"*.

Ultimately, understanding the nature of a teamwork element reduces the performance gaps between the participants and improves brain storm skills to solve implementation problems, which are enhanced by mutual engagement and dependency. Alignment of the participants will develop relationships, thereby trust and sharing knowledge will increase. Therefore, strengthening the relationships between the participants and the leadership team would remove organisational discrimination which exists in traditional organisations, and the delivery of the alliance project will be enhanced.

#### 4.4.2.11 Aligned Partners' Objectives

There is no doubt that the alignment of partners' objectives is considered an important factor, which can motivate the SA performance success in the right way. Six participants explained the importance of this factor to deliver success. P6 opines that, *“you have to get the objectives involved and you have to lead from the front and show the nature of the culture and what the alliance is all about”*. Meanwhile, P5 points out that aligned objectives means, *“objectives in the alliance together because that sets the strategic goal”*. At the same time, P4 reflects that, *“objectives are all locked in together”*. According to the comments provided, the main idea of aligning objectives is the gathering of participants as a band to facilitate the process of the implementation. Also, gathering the objectives enables the building of trust between the partners and enhances the proceeding teamwork. The efficiency of the decisions decided are dependent on the nature of gathering the participants around and the effectiveness of the discussions that take place, all of which would enrich alliance perceptions and enhance relationships. For example, P3 hypothesises that, *“if there were seven or eight people, and those people were just banging on, they would effectively come up with a full yellow, like a big sun, if yellow was the colour for people banging on, or proposing. And then if we also had colours that were for disagreeing or challenging, etcetera. So, we are looking for what makes a good decision”*. The strength of an alliance is represented by the extent in which the partners agree on the main procedures, which should be taken in the first stages, to lead the alliance towards success. Moreover, determination of the participants' responsibilities enhances the setting of goals for every department, thus managing the requirements of every branch in the alliance to facilitate formulation of the alliance objectives.

This argument is confirmed by P5, who states that, *“the aligned objectives mean the alliance agreement”*. In addition, P1 explains that, *“it is about having an aligned vision, and ultimately objectives. As a planning individual, having these objectives is crucial, they are aligned, so that everyone thoroughly understands them”*. The importance of formulating objectives is related to the alignment of the participants' vision of the targets needed and the capability requirements. The level of harmony between the partners is fundamental to aid comprehension of the requirements determined. Therefore, a level of understanding can be achieved by gathering the participants' ideas through formal meetings or workshops to specify the steps towards achievement. This stage is critical and the importance of it relates to the communication methods used for delivery and the receipt of ideas between the partners. In relation to this topic, P3 suggests that, *“it is important that people come to the table with ideas, but we are also looking for people to build on other people's ideas”*. While, P4 enthuses that, *“we need to have a workshop; we need 50 people in there; it is going to take a year to do it; it is going to be fantastic; everyone's going to*

*love it*". It is important that partners conduct face-to-face meetings, which work to plant trust and commitment, whilst sharing knowledge and challenging pre-existing ideas, because this enables the team to become closer. This level of relationship is sometimes known as *'behavioural fusion'*, which means that all the participants' interests become integrated and essentially focused on the strategic alliance. One such strategy is described by P2, *"we had a map of drawing a one-hour discussion on something. We would look at what we were looking for in terms of balance behaviours when engaging with people and effectively produce a pie-chart of people's behaviour, and then integrate the objectives"*.

However, the engagement of participants does not mean that all the objectives are integrated, so the stages of preparation and the selection of the right partners is fundamental to determine alignment of the objectives. Moreover, establishing relationships with the participants early, enables the ability of behaviour prediction and the identification of what is required through the implementation of SRA.

#### **4.4.2.12 Selection of the Right Partners**

It is generally confirmed that the selection of the right partners is a crucial factor, which can push the alliance to achieve success. The importance of this factor is inspired by the nature of organisational work, where organisations are a rigid entity and cannot conduct any functions without the presence of human beings. The need for humans forces the organisations' management teams to set the rules for selection of the right participants to carry out the jobs. Importantly, any type of successful organisational strategy depends on the efficiency of its workers. Six of the participants insisted on the importance of this factor, for example P3 states that, *"selecting people with the right behaviours is fundamental, which is why, as I mentioned earlier, it plays such a big part in the alliance process"*. While P8 opines that, *"I can't stress enough the importance of choosing the right people to sit on a team, it is probably the most important thing, along with the culture that they live by"*.

From these comments it is possible to surmise that the importance of selecting the right partners is extremely beneficial and it can be demonstrated by two positive outcomes. Firstly, dealing with partners who are considered competitors is advantageous, as gathering these organisations together results in the removal of the competition, thus the market position will be greater. Secondly, by gathering companies together to make an alliance, this allows insights into the main strategies followed and facilitates the sharing of ideal knowledge, which can ease the procedures of the alliance. In addition, the costs of purchasing resources is reduced, because the process of sharing resources is facilitated. Equally, training costs will decrease because the collaboration will limit the need to contract other companies to run training sessions, and experiences will be transferred smoothly between partners, thus generating trust. One

example of the importance of selection right partners is expressed by P7, who argues that, *“you have got to have the right people, because if that cooperation, honesty, or trust is not there, you are battling from day one”*.

Therefore, the selection of the right partners should be carried out through careful analysis of the business models in place, as all participants should have similar business models and interests, in this way they will complete one another. If there is a fluctuation or difference this will show in the stages of alliance cooperation and could result in negative factors such as distrust or opportunistic behaviour.

Both P2 and P6 agreed with choosing the right partner within the SA and considered it as a lesson learnt, to refrain from making a similar mistake in the future. For example, P2 reflects that, *“the right individuals are important, because some people aren’t right. I suppose some people are not suitable for alliance working. A leopard does not change his spots, does he? That’s maybe a lesson learnt, that you cannot just put anyone into an alliance”*. While P6 agreed with the importance of choosing the right people and learning lessons, by explaining that, *“there has been a lot of lessons we have learnt here and a lot of things we would do differently. Bringing some of the subcontractors onto the top table as part of the decision-making process was a real success and maybe we should do a bit more of that in the future, I think it has been quite a successful thing”*.

Notably, the learning of lessons or insight from conducting alliance strategy is substantial, where the process of choosing the right partners is not confined to recruiting people from outside the alliance. Sometimes implementation problems are faced, which force the organisations to get help from the participants at the lowest levels, because these people have practical experience through their positions and have experienced different issues daily, so their ideas and input can help to avoid problems. Therefore, a commitment to the alliance principles, rules and level of trust, are considered fundamental priorities for achieving success. Consequently, criteria should exist when selecting partners to be part of the alliance process. The significance of choosing the right people is highlighted by P8, who believes that, *“if they do not have the principles of being trustworthy, then this can be negative, and the implications are huge, so they have got to have the right behaviours. They have got to be the right person and not everyone is. So, the selection of your people is very important”*. This is further reiterated by P7, who stresses that, *“we have got to get the right people who are happy to commit to battle, to get the job over the line, put the time and effort into doing it. That is the biggest one for me, the right people”*.

Ultimately, the selection of the right partners is both important and difficult at the same time. The monitoring of partner behaviours requires time and energy to engage with, as well as following their

reputation in the market. The experience of the partners should be taken into account and partners who work in different areas or who are specialists are crucial, as they will enhance the implementation of the alliance. As mentioned previously, working as a loop or chain, where one partner helps another to complete the tasks, thus minimising conflict in some stages of the alliance.

#### **4.4.2.13 Partners Interaction**

One of the most critical behavioural factors for a successful the SRAs is the partners' interaction. This factor is vital for a wide range of actions between partners and enhances the imparting of knowledge and discussion of different points of view. Additionally, it increases awareness regarding immediate problems that may occur at any stage of the alliance, through the possibility of acquiring experience from the other partners. Six participants highlighted the role of partners' interaction in SA performance success, for example P5 indicated how the teams have integrated with each other and how this behaviour began, by explaining, *“we have got an integrated team, we have also got an integrated planning control team, and an integrated safety team, and none of us knew each other when we first started, so we have grown together. We must interact and trust the people we work with as we depend on these people, so interaction is very important”*. In addition, P3 comments that, *“for me the behaviours are how we interact on a daily basis”*.

Thus, the importance of the points made above, is the question of how to make the participants interact with each other. This could be done through the creation of a friendly environment, which can embrace all the staff and offer the opportunity to free them from the traditional restrictions of an organisational hierarchy. A space where opinions can be expressed within a free environment and participation in decisions relating to the alliance implementation is encouraged. Regarding this point, P8 reveals that, *“as leaders it is the environment you create, so you have got to create an environment where people strive, interact and you inspire people to go and do the work, to take on the challenge and I think we have done that well through the integrated teams that we have in here”*. This indicates that it is the responsibility of the leadership team to create an environment that allows the exchange of opinions without any conflict, thus enhancing the generation of trust and conversations at different levels resulting in honesty and transparency. Both P5 and P7 agreed on the importance of trust being present through the interaction of all partners. As P7 responded that, *“you have got interaction, and that's at every level, so that could be on a day-to-day basis, but everything should be on the table, there should be nothing under the table. So, it should be open and honest about the way things are going, and any issues that arise need to be shared with a common agreement as to how those are dealt with”*. The strength of interaction depends on the power of communication between partners, when the speed and value of information and knowledge are

transferred, this will increase the level of trust and commitment. Accurate knowledge could help to encourage the sharing of opinions and strengthen interaction, thus directing ideas towards finding the best solutions for problems. Furthermore, sharing problems is fundamental to the enhancement of brainstorming ideas and helping to overcome challenges and achieve success.

The idea of sharing is championed by P5, who states that, *“you need to share the problems, you have to interact together to find solutions to the issues”*. As a result, the core of interaction is based on the nature of the participants’ behaviours to achieve the principle of working as a team. The success of SRAs performance is related to the strength of the interaction between the partners, as well as the strength of the channel of communication to exchange what is required. During this cooperative environment, the alliance success will indeed be achieved.

#### **4.4.2.14 Constructive Conflict**

In SRAs, constructive conflict should be taken into account by the management team when planning for alliance implementation, particularly in decision-making meetings, where debate and disagreement are aimed at enriching the alliance procedures and can be considered healthy conflict. The target of this type of conflict is the generalisation of the benefits at all levels of an alliance. Five participants agreed that conflict can be constructive in nature and vital to the delivery of an alliance project. Three of the participants referred to the importance of constructive conflict, for instance P7 suggests that, *“you can have conflict in a healthy way, conflict and challenge are healthy”*. Further stating that, *“as long as conflict is in a positive manner, then success can be gained”*. Moreover, P1 adds that, *“we want to have a healthy debate, healthy conflict. You want to be in a position where you are quite happy to disagree with me”*.

These statements denote that the desire for achieving success is related to the nature of the conflict, which means fluctuations in participant behaviours are critical in determining the outcome of the alliance. This is because initial conversations and debates in decisive meetings will demonstrate the perceptions of the partners and whether they are headed towards achieving success or creating problems to gain some undisclosed benefits. According to P5, *“a little bit of healthy conflict helps build relationships and that’s a big part of the collaboration training that we take on board, so it’s key”*. This statement illustrates that constructive conflict could enhance thinking skills and logical reasoning, where realising problems and searching for solutions play a key role. These skills could then translate to opinions that are suggested in the decision meetings, with the freedom to disagree and argue about these ideas positively. This is considered constructive conflict, where the training sessions allow and encourage the brainstorming of the participants, thus providing healthy conflict. This idea of healthy conflict is mentioned by P4, who

recommends that, *“as long as it is healthy conflict and there is resolution at the end of it, so that people understand what the final outcome is, and they are all happy to take part, if you are having an argument then absolutely it has to be healthy conflict”*.

However, P2 looks at constructive conflict from a different angle, by suggesting that the levels of creating constructive conflict within an alliance require certain conditions in place; *“first, you must have complete trust in somebody, and complete understanding of how they work, how they operate, then you are absolutely in a place where you have got a mature relationship with them. If all that stuff stacks up, you are in a position where conflict with them is actually a positive”*. P2 also adds, *“... you can have a positive debate, maybe conflict’s a little bit harsh, so for me, if you have got all those levels of interaction or ties with the individual already, then conflict is all right”*.

In alignment with these comments, the power of the interactive level determines the range of conflict which can occur within an alliance. With the existence of trust that has been built and strengthens the relationship essential to the participants providing perceptions that represent solutions or alternative suggestions that can support the alliance to overcome challenges and achieve success. The nature of an alliance environment, along with the level of freedom given to the staff, relates to the degree of understandings and arguments being exchanged and are critical to motivate and enhance positive conflict and lead the alliance in the right way.

#### **4.4.2.15 Aligned Partners’ Visions**

To conduct a proper exploration of the behavioural success factors for strategic alliances in the UK railway industry and specifically the response practices, it is necessary to identify aligned visions as an important factor. Through analysis of the responses, aligned visions have been identified by five of the participants. Regarding the creation of visions within an alliance and how they are in tune with the objectives, P2 states that, *“it is about having an aligned vision, and ultimately objectives. As a planning individual, having these objectives are absolutely crucial, they are aligned so that everyone thoroughly understands them”*. As an organisational system, when any new organisation is being created, it should have a vision because this means that there will be future orientation and plans as to what needs to be done after a specific period. In terms of a SA, the participants are linked together from different organisations under one roof, so there is a need for the formulation of an independent vision which is different from the visions of the separate entities. The alignment of the objectives is reached after all the participants have agreed and understood the crucial conditions mentioned in the vision discussion. Then the aligning of the objectives is considered as the next step, because it is part of the future vision, which is formulated in agreement.

P6 describes the process of an aligned partners' visions by stating that, *"it is like you are detaching yourself from your own organisation and creating a new organisation, creating a new vision, you have got to sort of have the mind-set and some people struggle with it, but that's really what an alliance is, it is like a new organisation. So, you optimise what is the best for that project and then you have got to be ready to go into the world"*. The provision of an initial agreement from the first stage of establishing a strategic alliance, ensures that the partners engage perfectly from the beginning. This step is vital as P3 argues, *"everybody's got to be aligned in terms of vision and objectives correctly within the alliance"*.

Linking and grouping the behaviours of the partners are considered as one of the challenges in the organisational process. Therefore, to overcome this issue, the leadership team should try to formulate an effective and clear vision that would be accepted by all parties, as well as providing an environment where freedom is given to share and discuss all the elements that have been decided, to ensure that they are suitable for everyone. This argument is compatible with the comments made by P4, who states that, *"you have got to provide a clear vision of what you are trying to achieve and be quite strong in providing a clear vision of where you are trying to get to, these are the behaviours we are looking for"*. Furthermore, P8 described this initial process by offering an explanation of how the visions can become aligned, *"we developed a key set of values with some typical examples of what those behaviours would be and the various areas, this was put together by members of the team as well as being shared through the vision agreement"*.

These statements indicate that taking the partners' behaviours into account is one of the critical keys towards the achievement of SA performance success. In addition, the consideration of different opinions is important in the early stages, to avoid future behavioural problems, which could detrimentally affect the process. Consequently, sharing ideas, having clear communication, and selecting the right partners are all considered vital for the provision of a clear vision which is compatible with all the aspirations of the participants.

#### **4.4.2.16 Behavioural Accommodation**

According to five of the participants, behavioural accommodation is an important behavioural factor for SA performance success. Most of the suggestions provided were related to the strengthening of relationships and desires to work as a team, which is reflected by the participants who are fully engaged and accommodated within the alliance principles. An example of this type of accommodation is provided by P3, who mentioned how participants can be accommodated within the alliance; *"you cannot just expect people to turn up with that commitment at the start, they need to be accommodated, they need to*



*understand what it is they are getting in to. So, I think it is key to spend the upfront effort and training to explain what alliancing is, to make everyone fully engaged”.*

However, the accommodation also was described by two of the participants, which relates to the dwelling or location of the alliance, along with the behavioural harmony. This is explained by P2 who states that, *“it sounds basic, but having accommodation such as this is a massive factor. Having accommodation that’s outside of the client’s organisation, where all your alliance team can definitely work together. That’s a massive one for me”*. Furthermore, P6 points out that, *“we have been successful in that we have a fully integrated team, located in one place, that’s fully enabled to do what they need to do. Fully enabled to talk to each other and fully enabled to go over the silo working. Fully enabled to come in here on a daily basis for a quick half an hour catch-up, to make sure we are still on the right page. I think this is fundamentally one of the building blocks for our success”*.

According to these comments, trust and commitment cannot be gained unless the participants feel grounded within the alliance and have adopted the principles. The preparation phase as mentioned previously is important, it requires the availability and running of workshops and training sessions, as well as the building and strengthening of working relationships so as to be integrated strongly. Furthermore, accommodation does not necessarily mean adjustments and integration in an inherent sense, it can also be related to a material need, where a location or building is required as a base and staff can be accommodated within a new environment. Ultimately, the accommodation is an important factor to guide a SA towards success. With the responsibilities of accommodation achievement linked to the capability of the leaders to set the rules and provide compliance and compromise in the right way to the partners. Reaching optimal engagement is connected to the level of the alliance programme provided and the strategies that are in place to encourage the integration of the staff.

#### **4.4.2.17 Leadership**

Leadership is no less important than the other behavioural factors which affect SA performance success. Its importance is not related to the role of leadership as a function, rather that the role is represented by the personality of the person who is managing the team. Half of the participants agreed that leadership is one of the BSFs. For example, P6 reflects that, *“in terms of good leadership, this is really one of the main behaviours you are looking for at alliance management level. So, you are looking for both leadership and people skills really. I think the recognition of alliance is all about one group of people coming together to create one team to have one goal and not individual silos of work, so you have got to have this mentality”*.

The role of leadership is not just about the giving of orders, its main role is the stimulation of staff personalities, the investigation of behaviours and a respect for the nature of the participants' culture, all of which will enable leaders to deal with critical situations that could happen. For example, in relation to the decision-making process, P4 argues that leaders should be active and intelligent when deciding future alliance plans. As P4 states, *"I suppose behaviour has got to be that of leadership, that of being decisive in decision making, but being very impartial in your decision-making process, so it is for the benefit of the alliance and not necessarily for the benefit of your company"*. Decision-making can be complex and difficult, and it is vital that managers in the process should refrain from having feelings and being emotional. It is crucial that they stay impartial because this process is related to the destiny of several organisations, where determination of the strategic orientation of the alliance is linked to the leaders' actions.

In addition, P5 and P6 respectively agreed on the importance of the capability of the leadership team to draw an alliance vision and create a steady environment to ensure that the efforts of the participants are carried out efficiently. For instance, P5 mentions that, *"it is vital that there is a good level of senior management visibility in terms of the alliance leadership team, and that the alliance management team are integrated and onsite working with the members"*. P5 also adds that, *"as a leader it is the environment you create, so you have got to create an environment where people strive and you inspire people to go and do the work, to take on the challenges and I think we have done that well through the integrated teams that we have here"*. Leaders are role models and as such they should study their decisions carefully, because changes to the business environment could negatively affect business. Furthermore, creating a positive work environment, which enables the gathering of participants under one alliance roof is essential, as the first steps towards alliance success is staff satisfaction regarding the plans and vision. This stage is important to attract participant's trust and sharing everything will be beneficial for the alliance.

P3 highlights the importance of staff satisfaction and stability by stating that, *"you have got to have for me people that get it and are engaged in it and then you bring everybody with you, and we have been fortunate on this to have an alliance management team who have been really stable"*. Importantly, the formulation of the strategies is critical and is carried out by the leadership team, who match these plans with consideration of those of the partners and their culture. Whilst also recognising opportunities and avoiding threats through the observation of fluctuations and adjustments that occur in the business environment, to reduce the negative effects which could hinder the alliance success. Therefore, the responsibility of the leadership team is considerable. The next section discusses the finding of Theme three.

### 4.4.3 Behavioural Negative Factors of Strategic Railway Alliances

Theme three of the interview sessions is to determine the BNFs which can lead the UK’s strategic railway alliances to failure. The analysis for this theme concentrates on the issues and negative impacts that can occur when these factors appear in the alliancing and the extent of their impact on alliance performance. This fundamental theme is analysed through one node in Nvivo 11. The following

Figure 4-8 Figure 4-8 illustrates a screenshot for BNFs of SRAs node under theme three.

Name	Sources	References
Behavioural Negative Factors of SRAs	8	142
Distrust	8	18
Destructive Conflict	7	20
Opportunistic Behaviour	7	14
Coercive Power	7	17
Lack of Commitment	7	16
Lack of Mutual Communication	7	19
Lack of Knowledge Sharing	7	19
Misunderstanding Allinace Objectives	6	8
Lack of Mutual dependency	4	9
Unaligned Partners' Objectives	1	2

Figure 4-8 Screenshot of Strategic Alliance Behavioural Negative Factors Nodes

The main subject of theme three is the identification of BNFs for SRAs. This theme seeks to explore the extent of participant’s knowledge regarding BNFs that can detrimentally impact on SRAs performance in the UK. Although this research has focused on an alliance that has not experienced these factors, the aim of this question is to understand the level of awareness of the participants. All of whom have long-term experience in the railway sector as shown in Table 4-1. All the participants were asked whether they know what the factors are which could lead an alliance to collapse. It was noted that half of the participants were unaware of the meaning of BNFs, and the other half were able to list some of the factors mentioned below. The main reasons for this lack of knowledge could be inexperience of working with alliance strategy or being in a trusted environment where there is little or no exposure to the threats, as well as the participants not working fully in a strategic alliance.

Regarding BNFs, P3 agrees that, “*fundamentally, if the behaviours are not right throughout the organisation, the alliance will fail*”. While, P1 similarly comments that, “*if your behaviours go, or your behaviours have never been right in the first place, yes, the alliance will fail*”. On the other hand, P5 when questioned about a failing alliance expressed that, “*if you are not aligned, you are not in it together. How can you be in it together if one organisation’s making money and the other one’s losing money?*”.

According to these comments, it is possible to ascertain that strategic alliance success is related to the participant's behaviours. Therefore, monitoring behaviour is important and depends on the type of criteria which is used to select the right partners because using this criterion will protect all parties from those who are looking to achieve self-interest.

#### **4.4.3.1 Coercive Power**

Conducting coercive power, otherwise known as dictatorial power, is considered as one of the most BNFs. The nature of new organisational strategies as the strategic alliance is to explain and advise on the roles and tasks, for example, decision-making and the implementation of teamwork, to be more efficient than the traditional ways. As exposure to environmental threats and the changing of human behaviour forces organisations to review their strategies and adopt new ones. All the participants were aware of this factor and insisted that it is the most BNFs. Moreover, both P8 and P3 mentioned the nature of this type of power and its impact on alliance success. With P8 stating that, *“yes, dictatorship is not what an alliance is about. Alliance is about mutually agreeing to a solution that works for all. That's not a dictatorship”*. While P3 explains that, *“an alliance approach whereby there is just one guy in there saying ‘this is how it is going to be’, is not going to work, because you will have different views, the power of it, the power of having an alliance is that you have got different backgrounds, different skills, different views and they have all got to be heard. Yes, you have got to make a decision, but that's what you want”*.

The main point that can be extracted from these comments is that individual decisions do not work as they result in dictatorial authority being used, which does not fit into the ‘ethos’ of a SA because part of it is the importance of working as a team. Thus, the term SA is derived from the origin of the word (aligning) meaning cooperation. Using dictatorial power within an organisation will lead to the achievement of goals for the person who has the power at the expense of others. Therefore, consensus decision-making is fundamental, where it involves experienced and skilled members, who are able to expose and overcome the challenges together. This argument is confirmed by P6, who describes that, *“if you were showing the power as an individual and ignoring everything else, then I do not think that would work, but I think you have got to be shown to be powerful in terms of being forceful and in terms of decision-making. So, as a team yes, as an individual no”*. While P5 points out that, *“if we have got dictatorial power in the alliance, then we are not unanimous in our decision-making because people have not been asked to buy into that”*.

Consensus decision-making is the distribution of responsibility to ensure that everyone in the alliance feels responsible regarding what appropriate decisions are made to achieve planned goals. Also, decision-making as a team encourages the activity of participation between the partners, whereas using dictatorial

power results in the participants being isolated and working to achieve self-interest, which leads to the frustration of the alliance. Furthermore, P2 argues that using coercive power will impact on the participants' trust and commitment; *"I think also it would lead to mistrust. I think it would lead to people being uncommitted. Certainly, you would not be trusting of the individual or individuals, and ultimately your commitment would waver"*. In addition, P4 opines that, *"commitment and trust are probably the biggest losses. Your commitment drops, in which case you are not going to be efficient. You are not going to be delivering what you need to do, and you probably lose sight of what the end game is by using coercive power, so positive leadership is exceptionally important"*.

According to these opinions, loss of participants' trust and commitment could be caused by misdirecting and mismanagement when giving orders to the staff to conduct jobs. Using coercive power in leadership leads to the dispersion of participants and results in them feeling as workers not partners who have the right to contribute within the decision-making process and decisions regarding the destiny of the SA with other partners. This problem is related to inexperienced leaders not determining priorities, as well as their mindsets still thinking intensively as a traditional organisational system. Significantly, P1 points out the results of using coercive power and what problems can occur, *"if I am behaving like that and I am the boss, at the end of the day, I am abusing my power a little bit and my ideas win and all the rest of it, then you are going to stop challenging me anyway. You will think 'he will do what he wants', which means you get a suboptimal answer and all the rest of it, so you are not going to challenge. This abuse of power can almost lead to a lack of healthy conflict, and I think the danger is you are not going to be prepared to do that"*.

All the behaviours that enrich an alliance through ideas and plans regarding how to achieve performance success with lower costs and high quality, are related to open discussion and the challenge of opinions in a positive way. Therefore, by using coercive power, everything will become more difficult, as all the perceptions and open discussions will disappear allowing the dark side to appear. Then negative conflict and signs of opportunistic behaviour would start to rise as the individuals would feel their opinions are not important in the decision-making process.

#### **4.4.3.2 Distrust**

It is widely acknowledged that distrust is an extremely negative factor that can affect the SRA journey. All the participants confirmed that a lack of trust within an alliance would lead to alliance failure. The effect that mistrust has on relationships and team work was highlighted by P8, P1, P5, and P3, who all expressed either reasons or examples for it. For instance, P8 examines the reasons, *"what is the reason*

*why you do not trust? Some people trust someone straight away and then wait for that trust to be lost by an action. There are other people who have to gain trust and they will therefore be very careful about what they share until they have gained that trust, but ultimately if you lose the trust you will all behave differently to arriving at a solution to a problem".* Consequently, the existence of distrust causes loss of integration and honesty between partners inside an alliance, as P7 points out, *"it would deteriorate. It just goes down the plughole, because you are questioning then everything that you are being told. I think then it starts to go downhill. If you are in a meeting, people pick up on it, the mistrust that's there, and if you cannot trust somebody on one thing, then why should you trust them on other things? So, it has got to be an open book, as in, I do not just mean open books in costs, it needs to be that what I am telling you is honest, and what we think is the problem, or what needs sorting out, so that it stops a lot of idle discussion"*.

Taking these comments into consideration, it is possible to surmise that trust is a behavioural matter, which is controlled by the emotions of the participants and works as a foundation (*give and take*). Therefore, giving something should face the same initiative to grow the trust within the alliance's participants. Whereas, behaving differently would lead to a decrease initially in sharing knowledge and giving opinions at the first stage, resulting in the last stages of frustration occurring, such as conflict and opportunistic behaviour. As P4 states, *"missing trust will lead to frustrations between one another"*. With regards to mistrust, both P1 and P2 explained that a lot of efforts will encourage success, but without trust the participants would stay lost and afraid to share anything resulting in gaps of knowledge.

While P2 reveals that, *"if you have not got the trust, then you are just expending effort where you do not need to, which is completely wrong. You do not end up achieving what you need to do as a collective because you have got to do it together"*. This indicates that there is a group of negative aspects that cause the appearance of distrust, which will be covered further in this section. Importantly, two of the main aspects clearly affected are material and behavioural. Firstly, in terms of the material aspect, P2, P3 and P4 mentioned that distrust inside the alliance affects delivery of a SA project. This is explained by P2, who emphasises that, *"the trust and honest challenges and that side of it goes. It just becomes all negative and you spend all your time mistrusting and not working efficiently, and ultimately you end up being misaligned to the end game, which is delivering your milestones and to your budget. It just makes things a lot more difficult unnecessarily if you do not have the trust there"*. Moreover, P3 remarks about the material aspect and how alliance performance could be impacted, *"you will get a decrease in performance. There is no doubt about it. And if you get that breakdown in trust you will get less production"*.

In relation to affecting the quality and time of information needed to finish the jobs, P4 comments that, *“if something’s not going to happen on a certain date because you cannot trust the information being provided, then it is going to end up costing everybody”*. According to these opinions, the impact of missing trust reflects on the different levels and stages of the alliance. If the trust is lost, the capability of the participants to complete their tasks becomes more difficult. The main reason for this goes back to the absence of information which is required to reach the right decision, thus reflecting badly on alliance performance. As the SA process would be influenced by operational and behavioural stagnation, that could lead to a complete breakdown of the alliance in the end. Regarding the behavioural aspect, it is the participants’ behaviours that are essential motivators in the implementation of a successful SA.

Consequently, an adverse effect on several behavioural aspects due to distrust would be extremely detrimental. These negative effects were mentioned in the interview sessions, where three of the participants insisted that mistrust would impact on the level of commitment in the alliance. One such argument is by P7, who stresses that, *“ultimately, it would not work unless you are committed, and you trust each other. I would like to think I cannot identify that would ever happen. The alliance manager needs to establish and identify that, if there is an issue, straightaway, where maybe one company is frustrated with another company, and it is escalating, that needs to be moved up to the alliance leadership team and raised there, because if you do not get it sorted, it is lose-lose for everybody, so I would not like to be in one of those alliances where that does happen because it has lost”*. Furthermore, P6 states, *“if you lose trust and you lose commitment, either you have got a poor management team, or you have got a model that does not work, so then the alliance will just fall apart I think and it just would not work and, more to the point, we would lose money and my focus is to deliver profit, that is my focus”*. While P5 adds that, *“the openness and commitment all go back into the trust, so if there is none of that openness saying you know, ‘we have got a problem here and we need you to help us fix it’, then it will not work”*.

Hence, trust and commitment are linked together, with the loss of one resulting in failure of the alliance. Distrust occurs as a result of the inability of leaders to make the staff aligned together, the reason for this occurrence could be a lack of experience at leadership level, or the inability to understand the participant’s cultures and perceptions. As for the requirements of the alliance, the participant’s motivation would change and seek to cover self-interest thus distrust would become apparent. In the same way, three of the participants added that the relationships inside the alliance would be impacted negatively due to mistrust. An example of working relationships collapsing is given by P7, who explains that, *“if you do not have the trust, it is just going to implode. If you have got that mistrust and then it becomes realised, it is a vicious circle then, so you are not going to then be open and honest, and you start then pulling the shutters*

*down. It is just a vicious circle then from that point on. There are not going to be positive relationships. So, you are not going to positively interact".* Another example of a broken working relationship is given by P4, who says that, *"if you try and break that trust by blaming others, or hiding some of the facts, then pretty quickly your relationship will disintegrate, and performance will be hit, definitely, yes"*. Also, P6 adds that, *"the biggest thing I think would be the breakdown of trust and relationships between the participants"*.

The importance of continuing the relationships inside an alliance stems from the level of trust that is grown in it. All the alliance aspects are affected by a decrease or breakdown in trust, which starts with a reduction in the interaction between all parties and could quickly result in the blaming of one another and badmouthing or disparagement. Finally, the thinking starts to create conflicts and could result in self-interest, all these behaviours would negatively affect the alliance's performance, resulting finally in termination. This point is confirmed by P5, who describes, *"you will start to get people talking behind each other's backs and the other organisations' backs. It is absolutely when you start to lose, you lose that togetherness, that one team together, and the trust starts to break down and you start to blame one another, or to look at the success of others. Or perhaps if different, then the organisations start to say, 'one's failing but one's winning'"*.

Although, there are a number of behavioural negative impacts caused by mistrust, the main problem is the same, the achievement of the alliance would be weakened, and the relationships would become frustrated. This is when self-interest begins to appear, and the costs and challenges start to increase. All these behavioural negative aspects occur because the leadership level is not able to contain others, and the process of selecting the right partners may not have been studied as carefully as needed.

#### **4.4.3.3 Lack of Mutual Communication**

A lack of communication in a SA relates to inefficient information flow from one partner to another. From the interviews, all the participants answered based on their experience that the inability of an alliance to achieve success is linked to poor communication channels that connect the staff and leaders. While effective communication channels should accelerate the exchange of information allowing the alliance to cope with environmental changes. So, a lack of communication in the alliance especially in the first stages results in the participants being disoriented and non-integrated. As P3 mentions, *"it is really hard for people sat there, basically going from having really regimented systems and ways of working and everything else, to suddenly not knowing what's going on around them. They are in a completely new environment. They have been told they are in this alliance and they might have never worked in one*



*before. They do not really know what is expected of them, they do not know how to do things. So, you have got to have lots of communication, particularly in the early stages, to say this is where we are heading, this is the direction”.*

This indicates that to create a SA, in the first stages, it is important to consider the best methods of linking the staff together. A lack of communication could result in several problems, for example, as it is a new environment for the staff, insufficient planning of an induction or session to introduce the strategy would lead to the members being misaligned with their objectives fragmented. In addition, the participants’ skills would not be fully utilised effectively because application of this new alliance strategy should aim to develop in on their skills. Without efficient communication, the alliance would be hindered, as P7 points out, *“we are going to get your input, so you can help develop the skills. So, I cannot reinforce enough the journey you are going down, because it is so new, and it is unique. It has not been done particularly before, or a lot of people would not have worked in that environment before”.*

In a different way, a lack of communication affects the partner’s behaviours, as all the behaviours are linked together, so influencing one will impact negatively on another. An example of the repercussions of insufficient or ineffective communication is given by P8, *“if you do not have the communication, you are going to have a lot of people who are disillusioned, who do not get it, do not understand it, and potentially want to leave”.* While P4 adds that, *“...I think potentially there would be conflict, but equally, potentially just disillusionment and just feeling down about it and not feeling energised”.*

Furthermore, P6 explained how inadequate communication could lead to distrust, *“I think if the communication was lost, if we were not talking and what have you in terms of communication at alliance management level is not working, then yes, the trust will go and so on and so forth, it is important”.* Additionally, P1 states, *“if you have not got that communication, as I say, at that time, we are not as cohesive as a team”.* In agreement with the other comments, P8 adds, *“yes, without communication you would have conflict, you would have disillusionment, you would have people disengaged absolutely”.* It is clear that a lack of communication will result in a breakdown of an alliance. Although behavioural negative aspects will not begin immediately, a lack of communication will gradually start affecting the team. When communication is poor or inadequate, distrust, misalignment and a lack of dependency will normally appear, especially when this discrepancy is between the leadership level and the staff. If this happens, the difficulty to reach the right decision and challenging opinions negatively will appear because the technique of conducting the connection among all the partners has not been undertaken in the first stage in the right way.

Reasons for a breakdown in working relationships were provided by the participants. As P5 explains, the main problem is a, *“lack of communication from the leadership and not steering them in the right direction and also insufficient face-to-face visibility as leaders”*. This inability at leadership level to create strong communication channels with staff, can be discouraging, as P8 reflects, *“without communication, you are not going to solve a solution quickly and effectively and come up with the best way of doing it”*. While P2 mentions that, *“if communication is lost, you spend time and effort trying to do things. If you cannot do things. You get really frustrated. You get to the point where you are potentially getting disengaged with it”*. Finally, P1 stresses that, *“you spend time and effort that you should be working, by resolving things and trying to move the alliance forward, just doing the basics or trying to do the basics. When you do not have effective communication, it just makes it completely inefficient, demoralises people and causes unnecessary effort really”*.

Following on from these comments, it is obvious that a lack of communication has negative impacts in a variety of ways. All these impacts are considered challenges, when the partners cannot communicate very well, other behaviours will be affected negatively. Therefore, the right plan to ensure effective communication is the best strategy, because SRA performance success is related to how the participants can reach the right decisions as an integrated team.

#### **4.4.3.4 Destructive Conflict**

Destructive conflict is a part of the BNFs of SRAs. Human nature is attracted to conflict when some behaviours break down. The importance of this factor in the failure of an alliance is not isolated from the other factors, and seven participants confirmed that there are several reasons why conflict appears. One of the reasons provided by five of the participants is a decrease in the level of trust. This point was highlighted by P3, who comments that, *“if you get that breakdown in trust you will get conflict, you will get less performance”*. While P6 explained the importance of dependency and trust in delivering the alliance and what happens if they are lost, *“if the dependency is gone, yes, you lost that, you lost trust, and it will go to conflict, and it would not be a nice place to work quite simply”*. Another of the reasons for the negative side of conflict to occur is a lack of sharing knowledge and strategy when selecting the partners. As P4 states, *“if you are not sharing knowledge from different organisations in terms of issues and problems, you will get a breakdown in the trust, which will lead to conflict, disillusionment, friction and people working in silos”*.

The importance of selecting the right partners to avoid future conflict, is also pointed out by P8, who states that, *“if they do not have the principles such as being trustworthy, then the negative implications of*

*that are huge. If I do not have the right behaviours, I am not the right person and not everyone can do it. So, the selection of your people is very important*". Regarding the comments mentioned above, the main problem associated with creating conflict is when the leadership level is weak and there has been failure to gather all of the partners around one table and generate trust amongst them. The deficiency of leaders is not just represented by personality weakness, but also by shortcomings in the alliance charter. As a weak charter may not contain essential principles, which will reflect negatively on the participants' behaviours. For example, if some of the objectives are not present, then immediate behaviour could convert to destructive conflict, and finding solutions to problems could prove more difficult. As P6 explains, "*some people trust someone straight away and then wait for that to be lost by an action. There are other people who have to gain trust and they will therefore be very careful about what they share until they have gained that trust, but ultimately if you lose the trust you will all behave differently in arriving at a solution to a problem*".

The participants believed that the leaders of an alliance would create an alliance charter based on agreements, but if after opinions were given and they were not included in the charter, this would then result in conflict being the next behaviour. In alignment with this argument, P8 confirms that, "*it will lead to different behaviours. If you do not commit, I might not commit. I might be less inclined to offer up solutions. I might be less inclined to share things with you because I know you are not committed and the whole behaviour thing starts to erode*". This means that hiding anything within the alliance could result in the participants misunderstanding and distrusting the purpose of its creation. Its main purpose is that all parties are committed to it and share everything around the alliance boundaries to achieve the target within the time planned. However, if the participants do not believe in the principles, then conflict is the nearest alternative. So, the destiny of the alliance as P5 describes, would mean, "*you are going to demoralise everyone in the alliance and ultimately it might be a bad place to work and people will leave*". Therefore, the consequences of negative conflict are vast, as it will lead to frustrating the alliance process and the possible termination of the alliance.

#### **4.4.3.5 Opportunistic Behaviour**

There is no doubt that opportunism is a critical BNF which appears when one party in a SA seeks to gain some benefits by fulling self-interest on the account of other parties. All the participants were asked about this factor to explore their experiences, six participants explained the negative effects that could occur when it shows up in an alliance. For instance, P5 mentions the nature of this factor, "*if it is somebody seeking an opportunity that is only going to benefit them but decrease the benefits for the other partners, then that is the wrong type of opportunistic behaviour*". While P3 adds that, "*it will be evident out on site*

*when we are in the major critical stages, and people just look after themselves and get their own work done and forget about everybody else. Opportunistic behaviour is very negative”.*

As previously mentioned, human nature often seeks fulfilment of its desires, the process of controlling these caprices are the application of principles and laws to ensure people are committed to the authorities. Opportunistic behaviour is considered as one of the negative impulses that occur within a strategic alliance. This negative factor could happen not just by stealing tangible and intangible objects such as tacit knowledge and resources, but also by hiding information and knowledge and not sharing it with other partners to cover the requirements of an alliance.

In relation to destructive conflict and how it plays a role in opportunistic behaviour, P6 responds that, *“conflict is one of the motivators leading opportunistic behaviour to come up”*. This would then lead to relationships being threatened as P2 explains, *“the relationship would not be there because you are trying to build a relationship with someone who is told you lie and somebody you never trust, and it will be the same on both sides, so it has a massive impact”*. This information indicates that the main principal of building a SA is trust, so it is important to start with the control and management of the relationships and the behaviours that can cause negative impacts and lead to a break down from the beginning. This can be controlled by the disclosure of knowledge, as P3 demonstrates, *“if you hide stuff away then it becomes an issue and we are committed to no surprises, so you commit to no surprises then you have got to get things on the table, so I think this is the key solution for me”*. Consequently, it is possible to surmise that the dark side of an alliance will be present if there is an issue with one of the behavioural factors mentioned and the decisions taken are not accurately considered or reviewed in the beginning, thus negative consequences will arise.

#### **4.4.3.6 Lack of Commitment**

As mentioned previously, one of the most important behavioural factors in SA performance success is commitment, whilst a lack of allegiance will affect other behaviours which should be working and lead to its termination. As a result, seven participants agreed that if the trust and commitment are insufficient, significant issues will be present. One such reason for insufficient commitment is the weakness of the leadership, which is consistent with signs of indifference and a breakdown of the process, as P6 describes, *“if you lose trust and you lose commitment, either you have got a poor management team, or you have got a model that does not work, then the alliance will just fall apart and it just would not work and, more to the point, we will lose money and our focus to deliver a profit”*.

Furthermore, lack of communication between the leadership and management teams with the staff potentially leads to drop the level of commitment and vice versa, as P8 opines, *“if there is a lack of commitment quite often the important thing is to see the response from the alliance management team and the alliance leadership team. As this could sort out the problem”*. However, the main problem when confronted with a lack of commitment lies in the inability of the leaders to read the participants behaviours carefully, which could take place during the selection of the partners. Otherwise the consequences could be extremely detrimental, as P5 clarifies, *“if nobody’s listening to us, nobody cares, it stops being a nice place to work, it stops being a place that you look forward to coming into most days of the week”*. P5 also described some of the consequences that could occur in the alliance environment, *“the environment will not be good, it will affect health and wellbeing, as well as morale, people will be walking around with their heads down, nobody will be motivated, so it has a huge impact”*.

All these consequences will impact on the way the participants complete their tasks, as well as their motivation becoming reduced. These negative impacts will then affect alliance performance, as P7 discloses, *“others would be less inclined to commit, motivation will reduce, you are going to get adverse behaviour potentially”*. This point is also highlighted by P4, who states that, *“I just think you would have a breakdown in the alliance performance when commitment and motivation are reduced”*. In addition, three participants agreed that a lack of commitment would lead to conflict and signs of opportunistic behaviour, such as a weakness and reduction of the participant’s understanding of the SA principles and roles. This would reflect on the way the members behaved, as P3 explains, *“if you have not got the commitment from that core group of people who understand the benefits, you are not going to get further down the road, as while you go through the difficult stage, particularly early on when establishing the alliance, it is going to fail really”*. This means that understanding is one of the important factors in the achievement of an alliance, if it is not achieved, then commitment is affected, which leads to the disengagement of participants regarding the principles and efficiency in conducting the work. Thus, the alliance performance delivery breaks down, as P2 demonstrates, *“if you are not committed to something, and you are seen as being not committed to something then it is going to frustrate people, especially the people that are committed to it. You will potentially disengage with people, and again it is like a vicious circle, you end up inefficiently delivering”*.

Importantly, inadequate commitment has two main effects. Firstly, partners who are aligned together may hide information, innovations or knowledge that are required for implementation of the alliance. Secondly, a weakness of leadership vision relating to the future, for example, leaders have planned things not related to what was approved in the first stages, will aggravate non-commitment. This problem can

also be caused by a breakdown in communication between partners based on what the targets are and what needs to be covered, which is the fundamental premise of a strategic alliance. As P1 reflects, *“if you have not got the commitment, there is no answer to the other things. Just like if you have not got a key ingredient like communication, things could fall apart”*. This denotes that communication is essential to achieve commitment because a misunderstanding of the information supplied could mean that the abstention of commitment is high. Strong communication between alliance levels helps to build trust and commitment.

Therefore, the understanding of how an alliance can fall apart is critical, such as a strategy that could carry personal interests or the misreading of the internal and external environment. The consequences of such problems arising could cause failure, as P1 recounts, *“the strategy was not continued because of a lack of commitment”*. Furthermore, P2 stresses that, *“if you are not committed to what you are doing, you are not going to get the same successes”*. While P3 discussed what might happen if commitment is lacking, by stating, *“I think you will just get people reverting back to their more traditional ways of doing things, how they used to do it, how their own organisations do it”*. Consequently, the survival of an alliance is dependent on how the partners behave in it. A lack of commitment is not just considered a problem for the leaders or the participants, it is a problem for both, especially when dealing with errors that come from both sides. Thus, repetition of arguments without any solutions for the problem indicates that there is a leak in terms of the commitment which needs to be investigated.

#### **4.4.3.7 Lack of Knowledge Sharing**

It is generally agreed that a lack of knowledge sharing is a critical BNF that can adversely impact SRAs performance success. This issue indicates that an entire alliance programme could be impacted, when clarity does not exist between the partners, as they cannot share anything when trust is lost. Seven participants confirmed that a lack of knowledge sharing is negative and offered explanations as to how the decision-making process would be impacted by a loss of trust. As P6 explains that the partners efficiency would negatively convert, *“I think if knowledge is lacking, you will suffer a bit on the money side because you will not get the efficacies and you will probably run the risk of making poor decisions, and when bad decisions are made maybe the trust is affected, so then you start to lose the trust in people and start to lose that sort of side of it and then there is this tension within the alliance”*.

Moreover, P3 argues that, *“if you are not sharing knowledge from different organisations in terms of issues and problems, you will get a breakdown in the trust, which will lead to conflict, disillusionment, friction and people working in silos”*. Building trust in an alliance is difficult, as all the participants come

from a variety of organisational systems. However, the entire process can be considered easy when trust is built. Although the sharing of knowledge can be affected if someone in the alliance feels there is any improper behaviour carried out by others. For instance, a lack of knowledge sharing can impact negatively on the level of lessons learnt through the exchange of experiences among an alliance team. This point is considered by P8 who reflects that, *“if you do not share knowledge and you do not learn from the lessons, you will repeat the same mistakes you did before, and therefore you will spend more money. You will not maintain your programme and you will make a less quality product”*. Meanwhile, P2 points out that, *“if you do not share the knowledge about any of the specialist areas and experiences, you will not get the development of the individuals within the organisation, which will help them both later in the alliance and in their career”*.

The aim of creating a SA as mentioned previously, is the breaking down of competitiveness or competition between the companies, thus reaping the benefits of an integration with experienced partners in the railway industry. With the added benefits of knowledge acquisition and solutions to solve the implementation issues and reduce the costs of the alliance process. By contrast, a lack of knowledge sharing reflects there is a problem at the integration stage, which could be either due to the selection of the partners or a gap in the formulation of the alliance vision. These problems can impact in two ways. Firstly, a behavioural impact indicates that all the objectives that need to be targeted to develop the participants' experiences will erode. As the aim of the process of the SA is to integrate highly experienced participants with junior staff and provide them with lessons that will improve their capabilities. Secondly, an organisational impact which denotes a lack of knowledge sharing will reflect on the products as the quality will be poor if the sharing of experiences and encouragement of lessons is not achieved. This could lead to added costs for the alliance as it may result in having to bring other experts from outside to train staff to understand the process.

Regarding the first behavioural impact, P1, P2, P5, P6 and P8 agreed that a lack of knowledge sharing would negatively influence the participants' behaviours. As P8 reveals, *“a lack of the knowledge sharing leads to different behaviours. If you do not commit, I might not commit. I might be less inclined to offer up solutions. I might be less inclined to share things with you because I know you are not committed and the whole behaviour thing starts to erode”*. While P5 comments that, *“there will be no trust, there will be no teamwork, the morale would not be good, and the environment would not be here for the people, there will be no leadership. Everyone will just be looking after themselves”*. From this information, it is possible to establish that several negative impacts can occur if one of the factors is not working properly. This is because the factors act in a loop or chain motion, if one is affected it will cause a problem in the alliance

behavioural process, thereby, different behaviours could appear, and the alliance could result in termination.

In terms of the second perception of organisational impact, both P1 and P8 confirmed that a lack of knowledge sharing can also influence alliance procedures and the nature of the process. As P1 explains, *“the key for me is around the programme, if we had not shared the alliance programme and then integrated it so that we could see all the critical path stuff and all the rest of it, we would have been in a right old mess”*. Therefore, the fundamental element of knowledge sharing is the enhancement of trust and the improvement of participants’ skills and without its huge issues would show. Also, the integration between the participants would be weak, because as in human nature if you do not talk to people or share any information, the relationship will be insignificant.

#### **4.4.3.8 Misunderstanding of Alliance Objectives**

Understanding the SA principles is a fundamental factor leading to its performance success. However, misunderstanding the SA roles and processes is considered as one of the BNFs that can be faced. As mentioned previously, the organisations are aligned together and use the alliance as a tool to reduce the cost and improve the capabilities of the participants. In contrast, a lack of understanding will cost the alliance leadership a considerable amount of money in terms of conducting sessions and workshops to train the participants to be engaged and understand SRA. Six participants indicated that misunderstanding is a negative behavioural factor hindering alliance performance success. One of the participants offered some initial questions that were asked at the beginning of the process to check comprehension regarding the SA. As P2 repeats, *“do you understand the technicalities of what we have tried to do here? Have we had that conversation yet?”*. This question is important because as leaders, they are responsible for the provision of worthwhile training sessions, that enable the participants to engage within the alliance team. If there are no such sessions, then the misunderstanding would directly impact the behaviours and certain statements and frustrations may appear. An example of which is provided by P2, *“we do not understand the alliance. We do not know how to get to things. What are the alliance principles? I have never been trained on it”*. As a result, several consequences occur through misunderstanding. One consequence would be the extra time needed to train the participants and ensure presence within the alliance process. This would go against the aim of creating the alliance which is the sharing of everything. An example of this is given by P3, who argues that, *“you will get a team who cannot understand, where you will have to spend too much time arguing”*.



Another issue would be that there is no interaction between the partners or contractors and clients in the business model, which could lead to frustration and the abandonment of their objectives, so the main goal of the alliance cannot be achieved. An example of misunderstanding is given by P6, who points out that, “*contractors tend to understand their own worlds, if you know what I mean, whereas the client does not really understand us*”. Strategic planning and allocation of alliance resources can also be affected by misunderstanding, because there is not clear guidance relating to the alliance implementation stages, this is confirmed by P4, “*misunderstanding leads to significant re-planning, it leads to significant reallocation of resources*”.

A further consequence is the impact on the behaviour of the participants, as misunderstanding leads to fragmented objectives, which affects the establishment of trust and teamwork. Thereby, the performance of the alliance can be affected, where no progress is gained due to a lack of understanding of the SA principles. An example of the repercussions of members not understanding the process is provided by P2, “*it does cause a lot of frustration within the team if they do not know how to use it. There is only one system you are using, but some people cannot even understand things like that*”. Consequently, there are several issues that can occur through misunderstanding of the strategic alliance with the main impact represented by cost. As mentioned previously, without plans being put in place regarding the quality training materials required to keep pace with the nature of this strategy, there will be failure.

#### **4.4.3.9 Lack of Mutual Dependency**

To achieve SRAs performance success, the partners need be dependent on each other because this is the aim of establishing such a strategy. Dependency is hugely important when gathering a variety of specialists and resources in the same place, to be strategically formulated. Missing this factor within the alliance has a massive impact on the delivery of the alliance project and four participants mentioned this as a BNF when absent. An example of when dependency is lost and the consequences of this loss, is given by P2, who states, “*if you have got people who know what the dependencies are, but they are not willing to do it then that’s going to create trust problems. You have got commitment problems, and ultimately that’s going to end in the failure*”. While P6 adds that, “*if the dependency is gone, you lose that trust, and it will go to conflict, and it would not be a nice place to work quite simply*”. The origin of relationships is cooperation, if the partners are not willing to be dependent or allow another partner to be dependent, this will create a problem. This is because the creation of an alliance is to fill in gaps of experience and exchange resources, whereas conflict will be created between the partners if this is not the case.

This breakdown in collaboration is described by P7 as a, *“lack of cooperation with partners. You have got to have it, or be open-minded, if you are not open-minded about helping your partner out, then they fail, so you are also on the downward”*. In addition, P5 mentions that, *“when people continually let you down then you start to lose trust, and you start to lose confidence and so on and so forth”*. All these issues are based on the partners’ behaviours and what they require from the alliance when they become engaged in it. This is pointed out by P2, *“a lack of dependency causes people to not have the right behaviours when working together”*.

Therefore, the behaviour of the partners is the main controller regarding what is needed to be achieved within the alliance. If the behaviours are clear, then dependency and the sharing of everything will be very smooth and the alliance fulfilment will be positive. However, if the participants start having ambiguous attitudes, dependency cannot be achieved, and potentially personal-interest desires may become apparent during the SRA implementation.

#### **4.4.3.10 Unaligned Partners’ Objectives**

To achieve success for SRA performance, aligned partners’ objectives as mentioned in the BSFs, are an important factor, but losing them can be considered a hinderance. Unaligned objectives occur when participants do not have one proper target as a guide to fulfil their aspirations, which acts as the main catalyst for entering the alliance to obtain some benefits by integrating with other partners. One participant insisted that this BNF would affect negatively on SA performance success, as P8 details, *“unaligned objectives, unaligned goals. Having a goal that was agreed in the alliance but that the parties who had entered the alliance do not truly believe is the right one. If you do not believe they are the right goals, you may not behave in the right way. You may decide you have a different agenda, this is the biggest thing that could lead the alliance to fail”*.

Therefore, when a decision is taken to create a strategic alliance, the clients should host workshop sessions to look at the partners who they need to engage with, to follow their goals, and identify whether they are beneficial to what is being planned and needs to be achieved. However, the selection of partners without seeing their agenda and their background will impact on the progress of the alliance implementation because those partners could have a business model that is different from the others and this could affect their procedures, or they may have hidden desires and are seeking to achieve them through the alliance. The next section discusses the indicators of SRAs performance.

#### 4.4.4 Indicators of Strategic Railway Alliances Performance

The last theme in the interview sessions is aimed at the determination of the fundamental elements that can be considered as SRAs performance measures. These elements can be affected positively by the BSFs which lead to success, or they can be impacted by the BNFs which can lead to failure. These indicators are analysed through four nodes in Nvivo 11. The following Figure 4-9 illustrates a screenshot for the indicators of SRAs performance using a node under theme four.

Name	Sources	References
Indicatos of SRAs Performance		8 80
Achieving Goals		8 25
Achieving Profit		7 15
Reputation		7 26
Behavioural Satisfaction		6 14

**Figure 4-9 Screenshot of Strategic Alliance Performance Measures Nodes**

The subject of theme four SRAs performance indicators. This theme tries to explore the main indicators which can measure SA performance and the capability of them in achieving success or failure in a SRAs in the UK. All the participants were asked about three aspects that are relevant within these questions; economical, marketing and behavioural. It was noted that most of the participants had to clarify the meaning of the indicators and how they are important to SRAs performance.

With regards to the three aspects, P6 describes that, *“generally in an alliance and from my knowledge elsewhere, costs are driven down year on year, while profits go up year on year, because they continually learn what the better systems are, and you have a steady team, and you rotate people in and out of the alliance and so on and so forth”*. P6 also adds that, *“I think it is really important to do alliancing and it will make good money. Here we have learnt from it. We have a lot of good publicity and we will live off the reputation of this project for a long time and the collaborative nature of how it has been performed”*.

From these comments it is possible to establish that the achievement of success is not related to just one aspect, as all the aspects can be affected, because the aim of creating a SA is to enrich. The enrichment of one aspect does not mean the alliance has achieved success, because all three aspects mentioned work in a loop or as a chain motion, where one completes another one. At the same time, these aspects can be directly affected if the partners behave negatively which may lead to failure. As P3 comments, *“if you try*

*and break that trust by blaming others, or hiding some of the facts, then pretty quickly your relationship will disintegrate, and performance will be hit, definitely, yes”.*

Furthermore, because the relationships through the alliance are built on sharing everything, all can equally be affected, as P2 suggests, *“if you are in pain then you share that pain equally and if you are in gain, then you share that gain equally and it sounds straightforward”*. Therefore, all the behaviours should be equal within the SA, where the nature of cooperation means sharing positive and negative results to deal with them properly.

#### **4.4.4.1 Achieving Goals**

To achieve SRAs performance success, the participants’ goals need to be met in the alliance firstly. SA goals are usually determined in the first stage of the alliance and are matched with the vision and mission because these aspects are considered the strategic orientation. All the participants in the interview sessions commented on the importance of this indicator that measure for SA performance success. One of the major goals in an alliance is the reduction of the costs of the implementation. This is mentioned by P7, *“we are within the cost plan of we said it would be; we have achieved it by the date we said we would, as well, we hopefully have achieved all the strategic goals and milestones that were set”*. Furthermore, P5 points out the main goals that can be achieved by an alliance, *“we have planned and budgeted the job together, we all share the risks, the cost risks, and the opportunities as well. I think what we have done is really heavily focus on risk and opportunity and realise those opportunities where we can, within the different disciplines, where we can make money through working smarter or there might be a cheaper option and we share that information”*.

It is clear that achieving success is related to what is planned and there are multiple goals that refer to the extent of the vision being integrated and the agreement between the partners as to what they want to achieve. The gaining of opportunities and the avoidance of costs and environmental threats illustrates the extent of the strategy’s strengths. In addition, these organisations will reap benefits in future alliancing through their good reputations that have been built during the alliance. As P4 mentions, *“they definitely had a positive outcome out of it and it is not just from profit, it is from reputation and performance and recognition in the industry for what was delivered”*. This indicates that a positive reputation can be achieved through the exchange of experience and integration with partners, which can be considered the main goal of creating a strategic alliance. An example of a positive outcome is given by P1, who explains, *“we have done very well with the local economy. We have done very well with supply chain. We have*

*done well with the apprenticeships. I think the local stakeholders have been almost entirely positive about it all?*

It is important to note that one of the strengths of a strategic alliance is the implementation of the project using entrepreneurship strategies, without which the projects would cost double the amount. Furthermore, the degree of implementation would be high because all the experts and resources are gathered at the same site. This point is confirmed by P6, who states that, *“if we were not an alliance then we would have probably been about halfway through this project and it probably would have cost twice the price because we would have been in conflict, we would have had issues”*. Consequently, the ability of achieving SA goals is related to the capability of the partners to collaborate and work cooperatively together. One important factor for delivering SA performance is the building of relationships, as the partners become strongly integrated and trust begins to grow.

#### **4.4.4.2 Achieving Profit**

One of the important indicators for obtaining SA performance success is profit, where all the organisations are interested in its achievement in the first stage. The success of projects is often measured by the level of profit gained. Seven participants confirmed that profit is an indicator within the measures of SA performance success, while P6, P8, P1 and P3 all agreed that achieving profit is better together than doing it separately, P8 stating, *“we have got good profit, sure, 100 percent”*. In addition, P6 adds that, *“the profit has been protected, I think, as I said at the beginning really, when you have got a charter, you are not going to lose very much”*. Through a SA being at the core of a collaboration strategy, the processes of the distribution of loss and profit are equal, so one partner cannot gain more than another. This strategy aims to keep the relationships strong with the avoidance of conflict, which weakens a SA. This argument is supported by the opinion of P7 who states that, *“we are no pain no gain; we have a share in the gain as well as a share in the pain, exactly the same as everybody else there”*. In addition, P8 explained the importance of profit in the implementation of the project, reflecting that, *“our goal is obviously to make money, so from this point of view one of the goals is to be profitable, we have got this point in time achieved to the level that we want it to be”*.

This indicates that the achievement of profits is a major motivator for the participants, as when the level of profit is raised, the capability of the participants will increase. This is because most railway industry companies are targeted to gain profits, where the relationship between the profits and the partners capability to deliver the project is positive. A good explanation regarding the efficient ways to achieve profit, is given by P5, *“we have planned the job together, we have budgeted the job together, we all share*

*the risk, the cost risk, we all share the opportunities as well. I suppose the outcome is that the alliance gives us the tools that we need to manage the risks and opportunities, having a joined-up approach to it. The consequences and the outcomes are delivered smarter, being more efficient, and generating more profit for the corporate organisations, so I think that is the kind of process, that is the bigger outcome”.*

Therefore, the most important indicator is how to generate and increase the profits, along with smarter planning for the alliance strategy, especially in the first stage. With the formulation of defence plans in order to face challenges and help the partners to avoid problems and increase costs. Also, satisfactory planning based on what is expected in the future, to assist the gaining of opportunities by developing proactive plans. All these procedures work to strengthen the relationships within a SA environment and enhance the trust, as well as improving job efficiency in an exceptional way. Thus, increasing profits should be easy, because all the essential priorities have been achieved.

#### **4.4.4.3 Reputation**

All organisations are seeking to strengthen their reputation. With the efficiency of implementing jobs and delivering projects being essential for the achievement of these targets. The creation of SAs has become one of the main engines to stimulate organisations to engage with others and achieve performance success. Seven participants confirmed the importance of a SRA to enhance market position. For example, P3, P4, P5, P6, and P7 all agreed that their alliance had pushed the market position for all organisations to a higher level and their reputations had become famous around the world, because complex jobs were completed well in a specified time. As P3 describes, *“so it was massively important to our company, it gave us a reputation for a number of high-complex jobs being delivered on time and to budget as well, as because obviously the press tends to normally focus on the negatives”*. While P4 adds that, *“successful and safe delivery. It has been a real gain, as it is a big project in the north, so it is had outside-of-London attention, so from a reputational point of view it has been good”*. While, P5 reports that, *“we definitely had a positive outcome out of it and it is not just from profit, it is from reputation and performance and recognition in the industry for what we delivered, because it is the most complex project ever delivered in the North of England”*.

In alignment with these comments, the determination of the market position depends on the amount of achievement accomplished and on the capabilities, available inside the organisations aligned within a SA. All the benefits gained relate to a successful strategy for the selection of the right partners and proper planning for SA orientation. These positive points become beneficial to the organisations inside an alliance, as they are published not just inside the UK but across the borders and worldwide. This point is

confirmed by P6 who explains that, “*we will sell ourselves on the back of this, not just in the UK, we are a worldwide organisation, so we will sell it elsewhere as well. So, yes, it is good for the brand, it is good for the company*”.

This indicates that market position and reputation can be enhanced by working in a SA, because all these organisations have reflected on the experiences gained from other partners, as well as the lessons learnt from the partners who had worked in other SAs before. All these achievements could not have been fulfilled if the organisations had carried out these jobs alone, especially with the range of costs being high. This argument is highlighted by P8, who states that, “*if I had tried to deal with this job in a traditional way and not dealt with it as an alliance with one target and one common goal, we would not be where we are now*”. Furthermore, another example of how the market position improves is through the support of the national press, which enhances publicity by offering a positive picture regarding the efficiencies and skills contained within these companies. This factor was mentioned by P3 who explains that, “*it is really important that all the positive projects that go well get good publicity and this alliance has had loads of good press, loads of good coverage, loads of good publicity*”.

Therefore, the reputation can be enhanced by two elements. Firstly, the amount of positive behaviours which are inside the SA and represented by the sharing of experiences and skills. And secondly, the amount of external support which is represented by governmental support and informal institutions, for example, the support of the newspapers.

#### **4.4.4.4 Behavioural Satisfaction**

It is widely acknowledged that achieving behavioural satisfaction between participants is an essential norm in any successful project. Notably, within a SA this refers to the strength of the relationships between the partners. Six participants indicated the importance of this indicator in the measurement of SA performance. One way of measuring satisfaction is through the sending of reports that explain the extent of satisfaction gained through an SA process. This is described by P8, who clarifies that, “*they are going to go and report back to the corporate body to say yes, we are making money, we are working safely, it is productive, in fact it has enhanced our image, so I think, yes, it has been positive in that respect*”. This process is worthwhile, because these reports ensure that the reputation of the organisations are enhanced and provide and strengthen the demand for the creation of further alliances in the future. As P3 reports, “*it has absolutely enhanced the reputation and the fact that they have gone on already to win even bigger, or potentially bigger projects and work in bigger alliances. This is on the back of a lot of learning and experiences and success they have had on this job*”.

Behavioural satisfaction is achieved through the strong relationships among the participants, which involves long-term interaction, as this period of time demonstrates the behaviours of the partners and their expectations for the future of the SA. This is reflected by P4, who recounts, “*we have had our good days and we have certainly had our bad days. Yes, on the whole again, it is a small world, so on the whole it has been good. I think they have had good people on here as well, so yes, it has been good*”. While P5 specified the role of positive interaction in alliance success, “*we have got operations and managing directors of companies, they have had the conversations in there, they have had challenging conversations and healthy conflict and they have got to express those behaviours*”.

This denotes that the strength of the interaction between the participants reflects honesty and intentions in relation to the SA performance success, as well as satisfaction, which cannot be achieved unless the relationships are strongly built. Moreover, partners who are satisfied will usually engage with other SAs, because they have gained experience and skills on how to deal with others and how they can implement the jobs in the right way. This argument is supported by P2, who argues that, “*we have got a group of individuals that were very good to start with but have now got a fundamental understanding of how an alliance can successfully operate. So, they will go on and work on different alliances, and they will use what they have learned here. They will be able to positively engage and positively drive forward those alliances and they will absolutely. I think, for me, that is what we have got out of this successful alliance*”.

The gaining of satisfaction based on behavioural aspects is not easy, but the responsibility of the leadership is to provide smooth weather and share everything between the partners. Furthermore, the collation of ideas to know what the best options and ideas are and avoid the risks, are crucial to enhance the sharing of experiences. This process will reflect the opportunity to improve satisfaction and provide the participants with significant and beneficial lessons learnt through their interaction with others.

#### **4.5 Chapter Summary and the Link**

In this section, an exploration and discussion of the interviews has been conducted for the data collection of this research. The four main themes were provided from the qualitative data collated and were analysed accordingly. Before presenting a discussion of the interview techniques, a case study background was provided to create an idea of the NHA and what it is. An analysis of participant responses was classified into interview questions using four main themes for SRAs. Subsequently, sub-themes emerged from the collected data on each main theme. The first theme covered the concept of SAs and what the main motivations and benefits are, when working within SRAs. It also explored the nature of a SA process related to the responsibilities distributed internally. The second theme illustrated fundamental BSFs which



lead to alliance success. While, the third theme discussed the main BNFs that hinder the alliance success and finally, the fourth theme focused on the main indicators of SRAs performance and how they can be considered as an evaluative tool for SRAs performance success. The findings of the questionnaire survey relating to SRAs will be revealed in the next chapter.

# **Chapter 5 Quantitative Data Analysis and Interpretation of Results**

## **5.1 Introduction**

This chapter focuses on knowing the views of the participants with regard to the BSFs that can lead to successful SRAs performance in the UK, and as well as identifying the main BNFs that can hinder the success. Therefore, the fundamental aim of this chapter is to present the quantitative data results and interpret the main findings of the questionnaire, which was conducted by using SPSS 23 software. All questions were based on the findings that emerged from the qualitative method and the conceptual framework that was generated from the literature review. Moreover, the quantitative chapter provides a brief description of the quantitative data collection method. Finally, this chapter provides a summary of the key findings that emerged from the quantitative data analysis.

## **5.2 The Questionnaire Design**

This research formulated the questionnaire based on the literature reviews and the results gained from the interviews. Therefore, the questions were grouped into five sections; the first section is the participants' profile, the second section aimed to specify the main motivations for entering the SA as well as the benefits that can be gained by entering the alliance. The third section determined the level of participant awareness regarding the BSFs in SRAs. The fourth section specified whether participants have the required knowledge relating to BNFs in SRAs, whilst and the final section indicators the SRAs performance and how it could be affected by positive or negative factors. In addition, all the target samples surveyed are railway professionals who are working in the UK railway industry. The questionnaire met all ethical requirements, which were stipulated by the University of Salford's ethical committee. Importantly, an online Survey Monkey template was used to distribute the questionnaire, which made the process both easy and smooth. An online link was generated that was sent to the targeted sample. The snowballing method was adopted to distribute the instrument amongst the targeted sample in the NHA. The main manager approached other colleagues and sent out the link to all of them. In total, 73 questionnaires were completed and returned. These sections are further outlined as follows.

## **I. Section 1 – Participants Profile**

In this section, the questionnaire obtaining details about participants by posing four questions, which included: job title, level of qualification, number of years' experience in the railway industry and any previous involvement in SRAs. The main aim of this section is to gain a basic description of the targeted sample. This information is required to explore whether there are differences amongst the opinions of railway professionals who work as employees and work in managerial positions.

## **II. Section 2 – Understanding Strategic Alliance Concept (Theme 1)**

In the second section, the participants were asked important questions relating to the main motivations that would encourage them to enter an alliance. They were also asked about the essential benefits that can be gained. In total, five questions were grouped under the main heading and asked about the motivation for SRAs. Also, six questions were asked under the substantial statement about the benefits that can be gained from entering a strategic alliance. These questions were instructed to base a five-point Likert scale which determined the degree to which participants agree/disagree with key statements.

## **III. Section 3 – Behavioural Success Factors of Strategic Railway Alliance (Theme 2)**

This section comprised a group of questions that aimed to identify whether participants were aware of BSFs in alliances amongst the UK railway sector. This comprised 17 elements, where each question represented one BSF. All were based on a five-point Likert scale that determined the degree of agreement or disagreement with statements.

## **IV. Section 4 – Behavioural Negative Factors of Strategic Railway Alliances (Theme 3)**

This section aims to identify the BNFs, which can hinder the success of SRAs. The BNFs were classified into two main dimensions based on the literature review, whilst the results gained from the interviews added 8 BNFs. Participants in this section were asked 10 main questions, where each question represented one factor, and participants were asked to indicate their agreement/disagreement on a five-point Likert scale regarding these negative behavioural statements.

## **V. Section 5 – Strategic Alliance Performance (Theme 4)**

The last section of this questionnaire was designed to investigate the main indicators used to determine a successful SRAs performance. These questions were also given in the interview sessions, and although

one indicator was subsequently added to the list, namely reputation. Other than this amendment, all questions were the same between the questionnaire and interviews. This enabled the researcher to see all suggestions from the quantitative data collection, and to easily draw collective conclusions to this research.

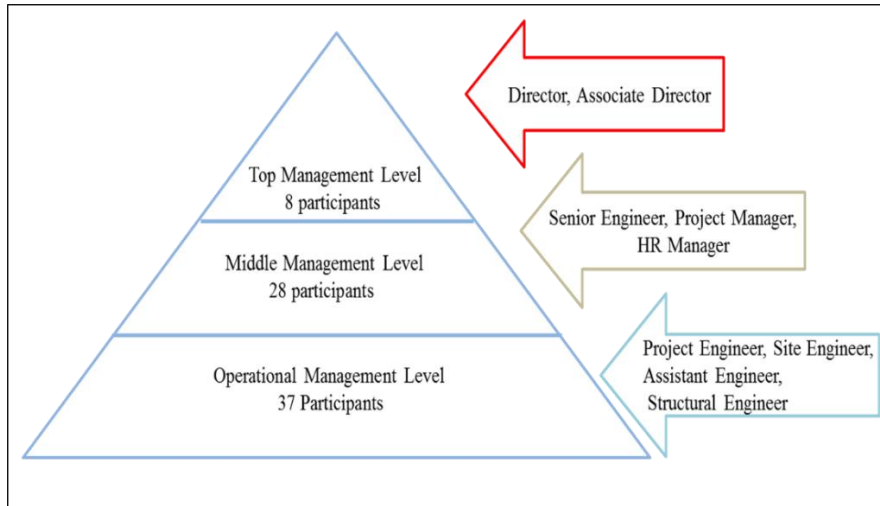
In order to ensure the reliability of the questionnaire by producing accurate results, a reliability test (Cronbach Alpha Test) was run. In particular, the description of the reliability test was conducted in the 3.16.2. The results highlighted that the data distribution was non-normal, therefore, non-parametric statistical tests were required to further analyse the results.

## **5.3 Findings from Questionnaire**

### **5.3.1 Participants Profile**

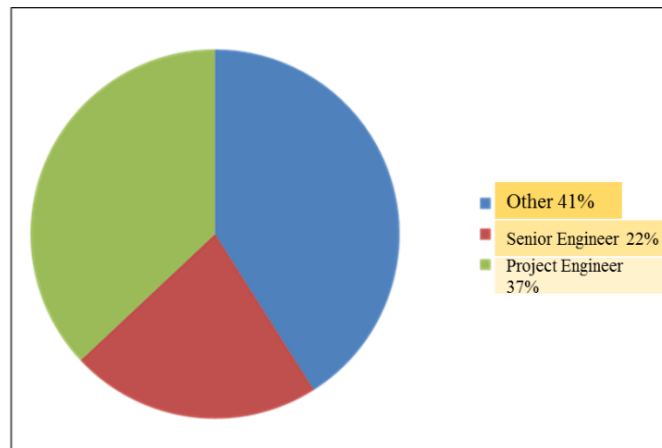
#### **5.3.1.1 Job Title**

This section presents a descriptive analysis of the participants' sample profiles, where they were asked their current job title. This type of question is important to determine the managerial position of the participants and to explore whether there is any variation in the opinions within the railway industry. Generally, the job titles of participants are classified into three levels namely: top management level, middle management level and operational level. Of the 73 participants, 8 participants worked at the top management level based on their job title, which they described as directors or associate directors. Moreover, 28 participants worked at the middle management level, where 16 participants indicated they were senior engineers, whilst the remaining 12 participants selected the 'other' option in connection with middle management. Finally, the remaining 37 participants worked at the operational management level, amongst whom 27 indicated they were project engineers, whilst 10 selected 'other' connection with operational management; these included assistant engineers, site engineers, and structural engineers. Accordingly, the classification of job titles, are shown in Figure 5-1 and frequency.



**Figure 5-1 Job Title Distributions**

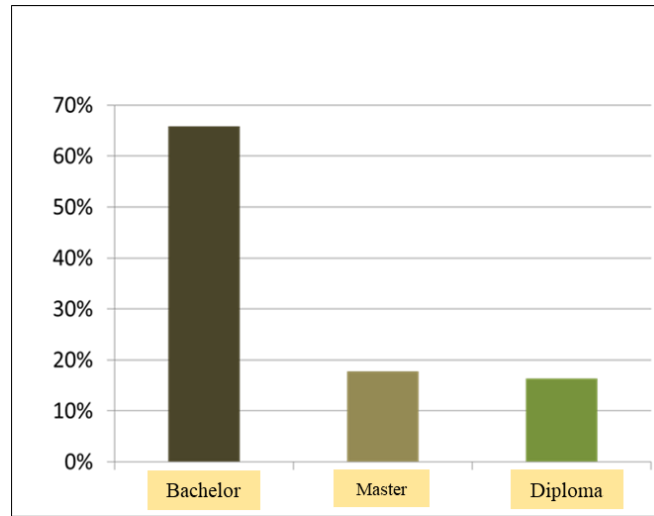
Through Figure 5.1 illustrates the distribution of the respondents working in different job title across the NHA management levels. It is clear that appropriate managerial positions were engaged within the sample. This is crucial in gathering various views from different managerial levels within the SRAs, which will help to determine an appropriate perspective for the research. The job title distribution is shown in Figure 5-2.



**Figure 5-2 Distribution of Job Title by Percentage**

### 5.3.1.2 Level of Education

The second question asked participants about their highest level of qualification. This information is important in establishing a clear picture regarding the level of education within managerial level employment in the railway industry. Thus, 65.8% of the participants hold a bachelor's degree qualification, 17.8% hold a master's degree and 16.4% hold a Diploma. The distribution of qualification levels amongst the participants is illustrated in Figure 5-3.

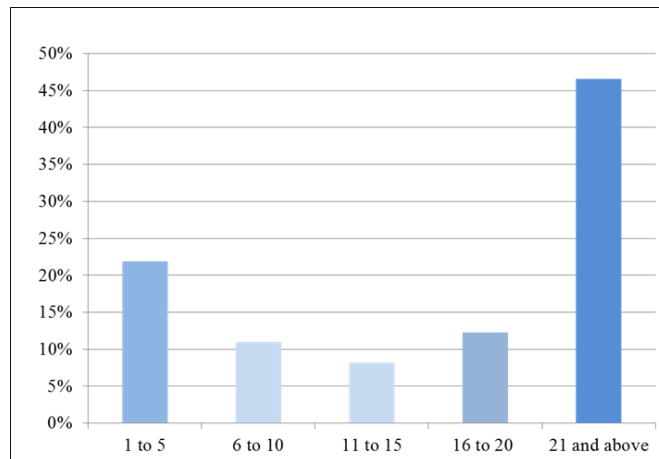


**Figure 5-3 Distribution of Highest Level of Education**

Figure shows that majority of the participants which engaged in this questionnaire are railway professionals, who currently hold a bachelor’s degree qualification. Therefore, participants in this research are fundamentally railway professionals, and qualified to undertake decision making positions in railway companies.

### **5.3.1.3 Years of Experience in Railway Industry**

One of the important objectives of the data collection stage in this research is to determine a successful of SA performance within railway industry; therefore, some experience of the industry is arguably crucial in enabling a successful SRAs. Therefore, it is appropriate to determine the degree of experience that participants hold in the railway industry. Accordingly, the researcher feels that this type of question is essential to determine whether the degree of diversity amongst participants’ answers. Thus, the level of experience may help when considering behavioural success factors in SRAs. The analysis demonstrated that most of the participants involved in this questionnaire had been working in the railway industry for more than 21 years, whilst a more junior group of participants (21.9%) had been working between one and five years. The smallest group, at 8.2%, had been working in the railway industry between 11 and 15 years. All results relating to this question are illustrated in Figure 5-4.

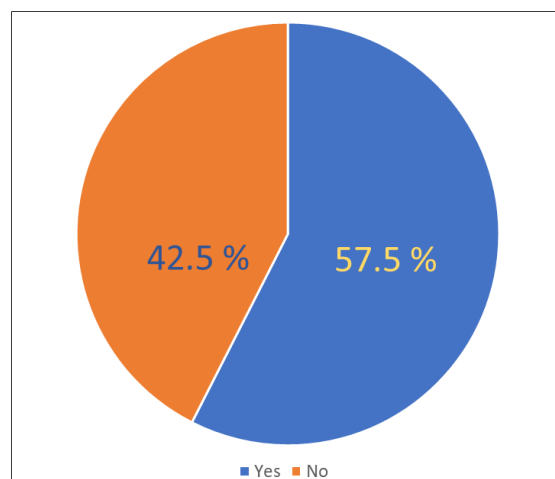


**Figure 5-4 Distributions of Years of Participants Experience**

Importantly, nearly half of the participants involved in this questionnaire had been working in the railway sector for more than 21 years. This suggests that UK alliance projects try to use professionals with experience. Nevertheless, the junior group represent 21.9% of the sample which suggests that the railway sector also aims to mix employees with substantial experience with those who are newer, which could support the development of a range of ideas and knowledge transfer.

#### **5.3.1.4 Previous Involvement within Strategic Alliances**

The participants were asked about their previous involvement in SAs. The results showed that, at 57.5%, more than half of respondents had been involved within SAs; furthermore, the remaining group had not been involved in alliances and represented 42.5% of the sample, namely 31 participants. Figure 5-5 illustrates these results.



**Figure 5-5 Distributions of the Participants' Previous Involvement within Strategic Railway Alliances**

The results from this question indicate a higher percentage of previous involvement within SRAs (57.5%); this experience can enhance the chance of a successful SRAs performance. Moreover, the combination of experience and previous involvement of SAs can help participants to identify the main BSFs.

## **5.4 Strategic Alliances in the UK Railway Sector**

This section focuses on describing the findings which emerged from Sections 2, 3A and 3B of the questionnaire. Section 2 explored participants' understandings of the concept of SAs; it included the main motivations for entering a SRAs and the benefits that can be gained by working in a SRAs. Section 3A identified the BSFs of SRAs, whilst section 3B determined the BNFs that hinder a successful SRAs performance. It should be highlighted that these sections are classified in parallel to the themes, which are included in the interview sessions, as analysed and discussed in the previous qualitative chapter. The analysis and discussion of this section follow the aim and objective of each theme. Applying the non-parametric Chi-Square, and Kruskal-Wallis tests will identify all the frequency distributions for the responses and the response fits.

### **5.4.1 Understanding of the Strategic Alliance Concept (Theme 1)**

The main aim of this theme is to recognise the level of understanding of SRAs in the UK railway sector by identifying the motivations that represent incentives to enter alliances and the main benefits that can be gained by engaging with alliances. Nine questions (Q5-Q15) relate to these two facets; the first five questions represent the main alliance motivations whilst the last six questions relate to the benefits that can be gained from SRAs. Guidance was given to participants to select the most appropriate option based on their experience. All the questions were organised on a five-point Likert scale.

#### **5.4.1.1 Frequency Distribution for Responses of Motivations of Strategic Alliances**

For questions 5 to 9, participants were given statements to determine their motivation to engage with SAs; the use of a scale enabled them to indicate their degree of agree/disagreement with the statements. A detailed explanation of the results is provided as follows:

##### **5.4.1.1.1 Access to Partners' Competences**

Based on their experience within the railway sector, participants were asked to articulate their agreement with a statement regarding access to partner competences as an incentive to entering a SA. Only 8.2% of the participants who responded were not sure whether accessing partners' competences was important as



an incentive for entering SAs, while the remaining participants agreed (61.6%) and strongly agreed (30.1%). These results illustrated that access to partners' competences was an essential reason to enter SAs amongst the sample. Table 5-1 illustrates the frequency distribution for the statement.

**Table 5-1 Detailed Findings for Item Access to Partners Competences**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q5	Frequency	22	45	6	73
	Percentage	30.1	61.6	8.2	100

The results in Table 5-1 demonstrate that access to partners' competences is considered an important motivator for entering SRAs. Thus, participants indicated that gaining access to external competences can be important in enabling an organisation to work more cooperatively with other organisations and to access the benefits of learning new strategies.

#### 5.4.1.1.2 Sharing Required Knowledge

Obtaining new knowledge in any SA is fundamental. Based on their experience within the SRA, participants were asked about the importance of obtaining new knowledge by working with other organisations. The majority of responses for question 6 were as follows: 61.6% agreed and 21.9% strongly agreed. This indicates that participants felt that gaining new knowledge by entering SAs were important in achieving a successful alliance. The range of findings for item 6 are illustrated in Table 5-2.

**Table 5-2 Detailed Findings for Item Sharing Required Knowledge**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Strongly Disagree	
Q6	Frequency	16	45	10	2	73
	Percentage	21.9	61.6	13.7	2.7	100

It is clear from the findings that companies in the UK railway sector place importance on gaining new knowledge by entering SRAs. This suggests that learning about other members' knowledge is considered useful to an alliance and organisation.

#### 5.4.1.1.3 Sharing the Delivery Risk

The third motivation element tested in this questionnaire is sharing the delivery risk. Working with risk is a complicated issue and some organisations try to find any way of avoiding it. Participants were asked a question regarding working risk and whether it can be decreased by entering a SRAs. More than half of

the respondents (56.2%) strongly agreed that risk sharing was one of the main motivations for entering a SRA, while the remaining participants (41.1%) agreed with the statement. The findings for the item 7 can be seen in Table 5-3.

**Table 5-3 Detailed Findings for Item Sharing the Delivery Risk**

Item No	Responses				Total
		Strongly Agree	Agree	Neutral	
Q7	Frequency	41	30	2	73
	Percentage	56.2	41.1	2.7	100

The main conclusion that can be drawn from the above findings is that the responsibility for the success of a project depends on the range of knowledge and experience available, which can be shared within the alliance to reduce the risk concerning the SA delivery. In addition, the majority of participants strongly agreed, which suggested that risk sharing was determined by the level of trust and commitment that should exist in the SA.

#### 5.4.1.1.4 Develop Skills of the Alliance Team

Skills development can also be achieved within a SRA; this element represents the fourth motivation for organisations to enter a SRA. As with the previous questions in this section, participants were given one statement related to the development of team skills based on their experience in railway projects. The findings show that 56.2% of the respondents agreed that engaging with other partners could enable the development of skills. In addition, 32.9% of participants strongly agreed with the statement. Table 5-4 illustrates the findings for item 8 concerning skills development as a motivation to enter a SRA.

**Table 5-4 Detailed Findings for Item Developing Skills within Alliance Team**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Strongly Disagree	
Q8	Frequencies	24	41	6	2	73
	Percentage	32.9	56.2	8.2	2.7	100

The findings suggest that employees in the UK railway sector see positive outcomes from the adoption of a SA. The participants explained that the top management in their organisations seek to develop worker skills by encouraging them to work in new directions with external and different teams. Making teams work together can have a positive impact on team skills by providing access to new techniques and cultures; this can make employees more productive.

#### 5.4.1.1.5 Reduction Cost Risks

One of the main motivations for organisations to enter a SA is the reduction of financial risk. Risk can increase through a changing business environment, competition, and globalisation, which can negatively impact on an organisation’s work. This can represent a key reason for forcing organisations to adopt a SA. Question 9 asked participants whether, based on their experience, reducing commercial risk represents one of the motivations to enter an alliance. Half of the respondents (49.3%) selected strongly agree whilst 38.4% agreed with this statement. As cost is one of the big challenges for organisations, reducing costs can become the main aim for the railway sector in order to maintain their market position. Also, 12.3% of the responses selected neutral. The findings related to item 9 are illustrated in Table 5-5.

**Table 5-5 Detailed Findings for Item Reducing Cost Risks**

Item No	Responses				Total
		Strongly Agree	Agree	Neutral	
Q9	Frequency	36	28	9	73
	Percentage	49.3	38.4	12.3	100

It is clear that the findings for item 9 indicate that railway sector managers within the SRA are aware of the risks involved in alliance projects. Thus, reducing risks can positively reflect on the organisation’s profits and promote their reputation.

#### 5.4.1.2 Ranking of the Motivations of Strategic Railway Alliances

Participants were asked to rank in importance the motivations of SRAs, Table 5-6 illustrates motivations ranking.

**Table 5-6 Ranking of the Motivations of Strategic Alliance**

No	Motivations Statements	Mean
1	Sharing the Delivery Risk	4.53
2	Reduction Cost Risks	4.37
3	Access to Partners’ Competences	4.22
4	Develop Skills of the Alliance Team	4.16
5	Sharing Required Knowledge	4

#### 5.4.1.3 Frequency Distribution for Responses of Benefits of Strategic Railway Alliances

For questions 10 to 15, participants were given statements to determine the benefits of SRAs. These questions were formulated as statements and responses were based on a five-point Likert scale; these

enabled participants to indicate their degree of dis/agreement with the statements. An explanation of the results is also provided in the following sub-sections.

#### 5.4.1.3.1 Enhancing the Profit

Railway companies generally prioritise profit gain in their activities. Thus, they tend to look for a quicker delivery of projects to secure solid profits in order to enhance their market position. For this reason, and as mentioned within the interviews, profit represents the main benefit that organisations seek to gain. Participants were given a statement on profits representing a reason to enter a SA. Most (42.5%) agreed, confirming in delivering a project an organisation would factor in profit as a benefit. However, 32.9% of participants selected neutral, while 16.4% disagreed. These responses suggest that the experience amongst some participants was comparatively small. In addition, their experience of SAs may be limited, which was reflected in their response. The detailed findings for question 10 can be illustrated in Table 5-7.

**Table 5-7 Detailed Findings for Item Enhancing the Profit**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Disagree	
Q10	Frequency	6	31	24	12	73
	Percentage	8.2	42.5	32.9	16.4	100

According to the findings in Table 5-7, the differentiation in responses can be attributed to role and experience amongst some participants; for example, managers within the safety department or project engineers may not hold the same opinions as senior managers or a commercial department.

#### 5.4.1.3.2 Enhancing the Reputation

Most companies seek to increase their reputation, especially in terms of profitability. Reputation enhances opportunities to enter new markets, countries or join collaboration relationships to improve their competitive position. Enhancing reputation as a benefit was tested by the questionnaire (question 11). Overall, the results indicate managers enhance an organisation's reputation by engaging with other organisations to create an alliance. Through this strategy, the skills and capabilities can be improved, and the demand on their engagement will be high. In this question, most participants (45.2%) agreed, while 41.1% strongly agreed with statement. A breakdown of the responses for question 11 is demonstrated in Table 5-8.

**Table 5-8 Detailed Findings for Enhancing the Reputation Item**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Disagree	
Q11	Frequency	30	33	6	4	73
	Percentage	41.1	45.2	8.2	5.5	100

These findings could be said to reflect the amount of knowledge that the organisational staff have regarding the enhancement of an organisation's reputation. Whenever an organisation's reputation increases, a portion of persons how are working in that organisation from wages, skills and experiences will be increased, by all these benefits, the needs of engagements with them will be high.

#### 5.4.1.3.3 Providing of Necessary Resources

The nature of the railway industry means it requires a huge amount of resource to complete tasks; thus, when different organisations come together to create a SRA, they can benefit from pooling complementary resources. The findings from question (item) 12 mirrored those from the interviews, where half of the participants (49.3%) strongly agreed, while 37% agreed. These percentages confirm the importance of resources amongst SRAs, and the desire within these organisations to generate a SRA aimed at sharing resources the findings for this item shows in Table 5-9.

**Table 5-9 Detailed Findings for Prevision of Necessary Resources**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Disagree	
Q12	Frequency	36	27	8	2	73
	Percentage	49.3	37	11	2.7	100

The findings indicate the extent of the awareness amongst employees regarding the importance of resources, and its contribution to SRA performance successes. Furthermore, participants might be aware that gathering all the resources sources under one SRA can prevent possible competition amongst the companies if working separately.

#### 5.4.1.3.4 Providing of Necessary Technology

Many companies are now seeking to develop their technological capabilities, to help stay abreast of developments in the business environment. Participants were asked a question regarding the development of technology capabilities, and whether this represents a benefit that can be gained from SRAs. Thus, in question 13, the majority of responses (53.4%) selected agree, whilst 21.9% selected strongly agree. These

responses suggest the attention given by the participants to developing their technological capabilities by cooperating with other organisations. The findings demonstrate in the Table 5-10.

**Table 5-10 Detailed Findings for Prevision of Necessary Technology**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q13	Frequency	16	39	13	5	73
	Percentage	21.9	53.4	17.8	6.8	100

It should also be highlighted that the percentage of respondents that selected neutral represent 17.8%; this suggests the presence of weak technology in organisations and specifically amongst staff. These findings generally indicate the importance of technology in delivering SRAs. Thus, railway companies should conduct training workshops regularly regarding the technologies, to keep those employees engaged with it.

#### 5.4.1.3.5 Enhancing Safety Abilities

One of the benefits that can be obtained from engaging in a SA can be to learn new ways to keep an organisational programme safe. These abilities enable organisations to manage future SAs and develop their competitive advantage based on the experiences they have obtained. In question 14, participants were whether they dis/agreed with the benefit of gaining safety abilities from alliancing. In response, 46.6% of the participants strongly agreed, while 42.5% agreed. Table 5-11 shows the range of results for this question.

**Table 5-11 Detailed Findings for Enhancing Safety Abilities**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q14	Frequency	34	31	6	2	73
	Percentage	46.6	42.5	8.2	2.7	100

Sharing experiences with others who possess more experience of collaboration can develop the level of awareness amongst alliance participants regarding safety in relation to the SA delivery.

#### 5.4.1.3.6 Quickly Responses to the Problems

One of the important benefits of alliancing with other organisations can be the speed in dealing with challenges and problems. Finding a solution to problems depends on the strength of the relationship between partners, as well as their respective amounts of experience. Sharing information amongst partners before problems occur is essential in order to avoid negative impact. This element was addressed in

question 15, where participants were given a statement that suggested a quicker response to the signs of problems can occur by developing alliances. Most participants strongly agreed (46.6%), whilst 42.5% agreed. A further breakdown of the results is provided in Table 5-12.

**Table 5-12 Detailed Findings for Quickly Responses to the Problems**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q15	Frequency	34	31	6	2	73
	Percentage	46.6	42.5	8.2	2.7	100

These results suggest that the functional and behavioural skills that relate to dealing with problems can be improved by engaging in SRAs. Pooled knowledge, skills and capacities can enable the faster response to problems; moreover, individual organisations and employees can benefit and learn from sharing such capacities and experiences.

#### 5.4.1.4 Ranking of the Benefits of Strategic Railway Alliances

To determine the importance of these benefits for SRAs, a ranking was developed which is shown in Table 5-13. Thus, the ranking of SRAs benefits according to the responses of participants to the questionnaire is shown as follows.

**Table 5-13 Ranking of the Benefits of Strategic Alliance**

No	Benefits Statements	Mean
1	Provision of Necessary Resources	4.33
	Enhancing Safety Abilities	
2	Enhancing the Reputation	4.22
3	Prevision of Necessary Technology	3.90
4	Quickly Responses to the Problems	3.74
5	Enhancing the Profit	3.42

These sections included frequency descriptions for participants' responses to the questions regarding to the main motivations for entering strategic alliances, and the main benefits that can be gained by participating within alliances. This section outlined the initial quantitative findings, which indicated that motivations included: accessing partner competences, obtaining new knowledge, sharing delivery risks, and reducing cost risks. Moreover, the main benefits included: enhancing profits, enhancing reputation, providing the necessary resources and providing the necessary technology. The following sections provide a frequency description of responses for the BSFs and BNFs of SRAs.

## 5.4.2 Behavioural Factors of Strategic Railway Alliances (Theme 2)

Section 3 of this questionnaire identified whether participants are aware of the BSFs and BNFs that can positively or negatively impact on the performance of SRAs. Thus, there are two parts in this section (A and B); section 3A includes 17 items, whilst section 3B contains 10 items. Participants note their disagreement with BSFs in questions 16 to 32, and their disagreement with BNFs in questions 33 to 42. The responses are based on a five-point Likert scale. All the questions within Section 3 (A and B) are provided in (see APPENDIX 2).

### 5.4.2.1 Frequency Distribution of Responses Behavioural Success Factors

From questions 16 to 32, participants were asked to respond to statements representing BSFs for SRAs. The frequency distribution for the responses are described in the following sections.

#### 5.4.2.1.1 Trust

Trust is the important factor that can lead to an alliance's success or failure. Participants were given a statement regarding trust, and whether it has a role within a successful performance of SRAs by enhancing the commitment amongst partners. In response, 71.2% of participants agreed, whilst 19.2% strongly agreed with the statement. The detailed findings are shown in Table 5-14.

**Table 5-14 Detailed findings for trust factor**

Item No	Responses			Total	
		Strongly agree	Agree		Neutral
Q16	Frequency	14	52	7	73
	Percentage	19.2	71.2	9.6	100

As illustrated in Table 5-14, the majority of the participants agreed with the statement, which suggests that trust was perceived as a substantial contributor to a successful performance of SRA. All other factors fundamentally depend on trust. Therefore, organisations needing to establish a relationship with other partners should concentrate on trust as the key for relationship success.

#### 5.4.2.1.2 Commitment

One of the pre-requisites within the literature to achieve SRAs performance success is commitment. Thus, success is not possible if commitment is absent, as this represents the second cornerstone of a positive SRA. In response to question 17, half of the participants strongly agreed (50.7%) whilst 46.6% agreed



with the statement that building relationships completely depends on the existence of commitment amongst all partners. In the following Table 5-15 illustrates the findings for the commitment factor.

**Table 5-15 Detailed Findings for Commitment Factor**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q17	Frequency	37	34	2	73
	Percentage	50.7	46.6	2.7	100

These findings were similar to those obtained from the interviews, when participants also confirmed the importance of commitment when maintaining relationships between partners. However, the questionnaire findings confirm that the importance of commitment relies on the existence of trust among partners, as these relate to the extent of comprehensive the opinions and aspirations, which enables a SA performance to be successful.

#### 5.4.2.1.3 Mutual Communication

The fourth BSF tested in the questionnaire was communication. Participants were given a statement regarding communication in their alliance, and (as with all other questions) were asked to respond in accordance with their experience of railway projects. The findings from question 18, confirmed that 46.6% of participants strongly agree, and 43.8% agree with statement. These answers confirmed the important role of communication in a successful the performance of SRAs, as it can enable an exchange of skills and enhance learning amongst all alliance members despite the potential diversity in organisational background. Table 5-16 displays the findings for the communication factor.

**Table 5-16 Detailed Findings for Mutual Communication Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Strongly disagree	
Q18	Frequency	34	32	4	3	73
	Percentage	46.6	43.8	5.5	4.1	100

The findings shown in Table 5-16 illustrate the importance of communication in delivering SRAs performance, which can help to transfer experience between members, and convey information rapidly in order to avoid potential and resolve existing problems, thereby avoiding SRAs failure. Moreover, the strength of communication between staff members within a SRA helps to improve the relationships amongst them.

#### 5.4.2.1.4 Knowledge Sharing

The strength of the relationship within SRAs relies fundamentally on the amount of the knowledge shared within the SA borders. Existing transparency in the SA offers an incentive to share knowledge, which is required to achieve a successful SA. Question 19 sought to degree of dis/agreement amongst participants as to the role of knowledge sharing in increasing the value of SRA. Participants answers indicated that more than half of the responses agreed (52.1%), whilst 43.8% strongly agreed. Detailed findings on knowledge sharing factor are illustrated in Table 5-17 below.

**Table 5-17 Detailed Findings for Knowledge Sharing Factor**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q19	Frequency	32	38	3	73
	Percentage	43.8	52.1	4.1	100

According to the findings in Table 5-17, importance of knowledge sharing in a SRA is recognised. This can be acknowledged through the strength of the connection between different parties working as one alliance, as well as enhancing the exchange of skills and the sharing of lessons learnt. This percentage of participants agreed with statement indicate that the knowledge shared among a SRA is recognised as valuable.

#### 5.4.2.1.5 Mutual Dependency

The fifth BSF in this questionnaire is mutual dependency. The importance of this factor stems from the amount the trust that exists among partners. A statement was given to the participants regarding mutual dependency and its importance in building trust within the SRA; most respondents selected agree (53.4%), whilst the second largest proportion strongly agreed (32.9%). Table 5-18 shows the findings for this factor.

**Table 5-18 Detailed Findings for Mutual Dependency Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q20	Frequency	24	39	5	5	73
	Percentage	32.9	53.4	6.8	6.8	100

It is clear that the findings explain the strength of the relationship between railway companies, which suggest that railway projects usually need the help from others in order to continue to develop in the current business environment. Dependency is required in these projects but cannot be achieved if trust is lost. Thus, the relationship between trust and dependency is positive. However, some participants selected

chosen neutral (6.8%), whilst others disagreed (6.8%). This suggests, that they could be new members, or have not previously been involve within a SA. It could indicate that they need more training and involvement to ensure mutual dependence is recognised for delivering the performance of SRAs.

#### 5.4.2.1.6 Openness to Challenge

Challenging partners' opinions is one of the critical areas that can help to promote a successful SRAs performance. This behaviour can be represented as a brainstorm for decision-making process and problem solving. For question 21, participants are given a statement that asked whether challenging partners' opinions help to obtain a fundamental decision. The findings showed that 47.9% strongly agreed, whilst 43.8% agreed with the statement. The findings are shown in Table 5-19 below.

**Table 5-19 Detailed Findings for Openness to Challenge Factor**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q21	Frequency	35	32	6	73
	Percentage	47.9	43.8	8.2	100

The findings demonstrated in Table 5-19 confirmed the perception amongst participants that this is important factor for a successful alliance. This can be connected with the influence of top management, who may promote freedom by enabling a democratic environment within meetings and by trying to brainstorm opinions and ideas. This can enhance the chance of a successful SRAs performance within a specified timeframe, as the relationship should be more relevant. Therefore, trust will be reinforced between partners.

#### 5.4.2.1.7 Understanding Alliance Objectives

Understanding the alliance objectives, as a BSF, can also help to promote a positive SRA. This matter is particular important in the first stages, when understanding the SRA objectives helps to make the process smoother and more achievable. The participants were asked to rate their agreement with the statement within question 22. This item stated that understanding the SA objectives enabled alliance staff to work as a team. Most of the responses indicated a strong agreement (58.9%), whilst 32.9% agreed with the statement. Table 5-20 displays the findings of this factor.

**Table 5-20 Detailed Findings for Understanding Alliance Objectives Factor**

Item No	Responses				Total
		Strongly agree	Agree	Disagree	
Q22	Frequency	43	24	6	73
	Percentage	58.9	32.9	8.2	100

Table 5-20 indicates the extent to which the UK railway sector has developed, which suggests that the process of creating a project has been tested over a long time in order to be understood. Also, selecting right partners and regularly conducting workshops at the alliance stages enables the easy absorption of the objectives.

#### 5.4.2.1.8 Constructive Conflict

One of the main requirements in achieving SRAs performance success is the use of healthy discussion that enables constructive conflict. This can be particularly useful amongst participants within decision-making meetings, who will be able to positively contradict opinions and views concerning the best decision or solution. Participants were given a statement to clarifying this factor to ask whether they agreed with it. More than half of the participants agreed with statement (52.1%), whilst 39.7% strongly agreed. Table 5-21 shows the findings for the constructive conflict factor.

**Table 5-21 Detailed findings for Constructive Conflict Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q23	Frequency	29	38	2	4	73
	Percentage	39.7	52.1	2.7	5.5	100

According to these findings, participants in the UK railway sector are aware of the importance of constructive conflict as an effective strategy; indeed, this strategy offers a way for all partners to explain their views. Offering different ideas and trying to positively contradict these opinions will enhance the chance of a successful SRAs performance. However, those who disagreed (5.5%) could consider such conflict as potentially negative, and thus try to avoid it as much as possible.

#### 5.4.2.1.9 Teamwork

Working as a team is one of the BSFs that can lead to a successful SRAs performance. Participants are asked a question, which represents the importance of teamwork as a behaviour; this can enable better accomplishment in a project than working individually. Most responses strongly agreed with the statement (61.6%), whilst 32.9% agreed. The findings are illustrated in Table 5-22.

**Table 5-22 Detailed Findings for Teamwork Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q24	Frequency	45	24	2	2	73
	Percentage	61.6	32.9	2.7	2.7	100

The findings indicate that participants recognise the importance of working as a team in the delivery of any project. Also, participants within the UK railway sector are likely to continuously face this concept through regular training sessions or the continuous of engagement with other participants across a variety of organisations, which can help them to understand the different cultures and backgrounds within a project.

#### 5.4.2.1.10 Leadership

Good leadership means the capability of top management to draw a clear vision for the future of the SRAs, and the ability to gather all the partners around one table within a democratic environment. The question stated that leadership is essential in achieving more positive future for the SRAs, and the majority of responses indicated a strong agreement (84.9%), whilst 12.3% agreed with the statement. Table 5-23 illustrates the findings for this factor.

**Table 5-23 Detailed Findings for the Leadership Factor**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q25	Frequency	62	9	2	73
	Percentage	84.9	12.3	2.7	100

The findings indicate that the role of leadership is important for the success of SRAs performance; when freedom exists within the hierarchy of organisations, the delivery of tasks is easier. Furthermore, this allows participants from different levels within a SRA to contribute to the SRA vision.

#### 5.4.2.1.11 Aligned Partners' Objectives

A successful SRAs usually requires the matching of partners' objectives when they are aligned in the first stage of the process. Question 26 asked about the importance of aligned objectives in an alliance's success. Most of the participants strongly agreed (72.6%) with this statement, whilst (24.7%) agreed. All the findings are shown in Table 5-24.

**Table 5-24 Detailed Findings for Aligned the Partners Objectives**

Item No	Responses				Total
		Strongly agree	Agree	Disagree	
Q26	Frequency	53	18	2	73
	Percentage	72.6	24.7	2.7	100

According to the findings in Table 5-24, these factors is considered important in accelerating a SRA performance success. Without matching the partner’s objectives, a SRA may not be successful. This is because creating such a SRA depends on the number of objectives that need to be achieved.

#### 5.4.2.1.12 Aligned Partners’ Visions

Vision represents the main base for creating a SRA; it defines the future perception of the alliance and what is needed to achieve this. Thus, participants were given a question to describe the importance of formulating aligned visions for a successful alliance. The findings came, more than half of the participants strongly agree with statement by (56.2%), and (34.3%) agree. the findings are illustrated in the following Table 5-25 below.

**Table 5-25 Detailed Findings for Aligned the Partners Vision**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q27	Frequency	41	25	5	2	73
	Percentage	56.2	34.3	6.8	2.7	100

The importance of unifying partners’ visions within the SRAs is recognised; creating the alliance means sharing everything among the partners, in order to configure a complete picture of the alliance as one organisation. Moreover, the behaviours of partners are clearly matched with their responses. In contrast, the participants who disagreed (2.7%) may be newly engaged with a SRA and thus need more time to fully absorb the programme.

#### 5.4.2.1.13 Selecting Right Partners

Selecting the right partners is priority for a successful SRAs performance, where there should be criteria to check behaviours, including whether partners are appropriate for a SRA. A statement was given to the participants, (question 28) that asked about the importance in selecting the right partners for a successful alliance. The majority of responses agreed with statement by selecting strongly agree (76.7%), whilst 19.2% agreed. Table 5-26 shows the findings for this factor.

**Table 5-26 Detailed findings for Selecting the Right Partners Factor**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q28	Frequency	56	14	3	73
	Percentage	76.7	19.2	4.1	100

The results suggest that SRAs in the UK focus on skilled partners who have been engaged with other alliances; this enables an easier alliance. In addition, new partners with skills are capable of sharing their experiences with others, which can be considered a key to achieving SA success.

#### **5.4.2.1.14 Training**

The importance of training stems from ensuring that participants effectively adapt to SRA activities; thus, training sessions usually refine a partner’s behaviours to create coordinate closely with the alliance requirements. Participants were asked a question about the importance of training element in developing an awareness of the challenges surrounding SRA operations. In total, (50.7%) of the responses agreed with statement, whilst 31.5% strongly agreed. The detailed findings relating to the training factor are shown in Table 5-27.

**Table 5-27 Detailed Findings for training Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q29	Frequency	23	37	11	2	73
	Percentage	31.5	50.7	15.1	2.7	100

In general, these findings provide a clear picture of participants’ perceptions regarding the importance of training in improving SRAs members’ skills. In addition, training sessions are especially critical in the first stage when creating a positive environment, ensuring that all partners know each other and in exchanging experiences. However, 15.1% of participants selected neutral whilst 2.7% and disagreed; these participants may believe that acquiring such skills and experiences occur within long-term practice rather than through training.

#### **5.4.2.1.15 Non-Coercive Power (Democratic Power)**

Spreading the spirit of democracy in the SRAs environment is important for its performance success. Allowing participants at different levels within the alliance to contribute their ideas and experiences regarding what is beneficial for alliance future can help to strengthen the trust between all alliance partners and finding fundamental solutions for each challenge can enable the alliance’s progress. One statement is

given to the participants regarding the importance of non-coercive power (democratic power) in achieving substantial decisions within the alliance. Half of the participants agree with this statement (50.7%), and whilst 28.8% strongly agree. In total, the findings of non-coercive power factor are shown in Table 5-28.

**Table 5-28 Detailed Findings for Non-Coercive Power Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q30	Frequency	37	21	11	4	73
	Percentage	50.7	28.8	15.1	5.5	100

It is clear change is occurring in the organisational behaviour, where the management's attention is changing from a hierarchy and giving the orders into creating environment that is more flexible, allowing for all the participants to contribute to the decision-making process. In addition, awareness programme workshops have a huge role in increasing management awareness regarding the changes in the organisational environment. However, there were participants who selected neutral (15.1%) and who disagree with the statement (5.5%). They might not have long-term experience, and thus may be convinced that any successful project or organisation can be achieved by traditional hierarchical decision-making and by using coercive power to giving orders.

#### 5.4.2.1.16 Partners Interaction

Attention to developing the principles of interaction between partners is essential. Sharing experiences and knowledge are important requirements to enhance interaction amongst partners. The statement provided to participants stated that a high level of interaction between partners helps to enhance a successful the performance of SRAs. In response, (57.5%) of participants agreed, and 35.6% strongly agreed. Table 5-29 shows the results of the interaction factor analysis.

**Table 5-29 Detailed Findings for interaction Factor**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Disagree	
Q31	Frequency	26	42	3	2	73
	Percentage	57.5	35.6	4.1	2.7	100

According to Table 5-29, alliance members may not know that a successful SRAs can be due to the strength of interaction amongst partners. Interaction cannot be effective unless partners positively trust each other, and exchanging trust helps to enhance opportunities to gain critical information and knowledge in regard an alliance's achievement.



#### 5.4.2.1.17 Behavioural Accommodation

Gathering participants from different backgrounds at one entity is fundamentally critical. Applying this aspect can encourage members to adapt to an alliance system and secure tangible and non-tangible benefits. A statement regarding the importance of accommodation factor as a BSF in SRAs in the UK was given to alliance members to determine the role of this element in an alliance’s success. The results show that (46.6%) agreed, and 42.5% strongly agreed. Table 5-30 illustrates the detailed results for this variable.

**Table 5-30 Detailed Findings for Accommodation Factor**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Disagree	
Q32	Frequency	31	34	6	2	73
	Percentage	42.5	46.6	8.2	2.7	100

These results suggest that alliance members have a high level of awareness regarding the benefits of working close to other partners. Indeed, this can help to establish trust, which can help to develop capabilities and improve creative skills.

The aforementioned section discussed the frequency distribution of the participants’ responses, which were obtained from the questionnaire according to the BSFs of SRAs. The initial findings from the questionnaire confirm the BSFs that already exist, and the new factors obtained from the interview sessions. The next sections examine these factors according to participants’ responses through Chi-square and Kruskal-Wallis analyses.

#### 5.4.2.2 Chi-Square Analysis (Goodness of Fit Test)

The Goodness Of Fit Test (GOFT) is generally assessed by describing how well the model fits the observed data, in which it is used to test hypothesis, as well as evaluate the variance between the observed values and the actual data, with the expected values gained from the model (Pallant, 2013). The importance of applying the GOFT measure through statistical testing is evident, as researchers need to determine whether the measure of the empirical discrepancy is large enough to reject a null hypothesis. In addition, the capability of this test helps to assess whether a specific phase-type distribution can provide an appropriate fit to the data (Field, 2013). The reason for choosing this particular inferential test is to examine the actual and observed values for strategic alliance participants’ opinions in order to retain or reject the null hypothesis and determine the level of significance level at (.05%) (Field, 2009). Importantly, the process of conducting this test firstly started by formulating initial hypotheses to show if

the probability of agreeing or rejecting the statement of factors being equal or not. The second stage was, in order to deeply understanding the variance between the observed value and actual data, the researcher used the frequencies for each factor (highest and lowest value) by formulating another two focused hypotheses to determine specifically if the findings can be considered significant or not at the significance level.

#### 5.4.2.2.1 Trust

In this part, the researcher states that there are two hypotheses; the first hypothesis is that all members of the SA are believed to have an equal probability of agreeing or rejecting the statement that *‘trust other partners will enhance commitment’*. The second hypothesis is that all members of the alliance are believed to not have an equal probability of agreeing and rejecting the statement provided above. These two hypotheses are provided below.

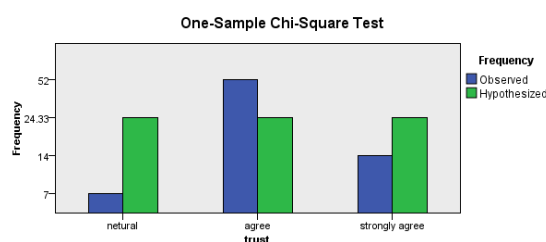
*H<sub>0</sub>: All the members of the alliance have an equal probability of accepting or rejecting the statement “trust enhances a partner’s commitment to the alliance”.*

*H<sub>1</sub>: All the members of the alliance do not have an equal probability of accepting or rejecting the statement “trust enhances a partner’s commitment to the alliance”.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of trust occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to the results shown in the chi-square test cell, the null hypothesis is rejected at the significance level is (.05%), which indicates that the opinions of the alliance members have a statically significant difference in agreeing with the statement *“trust enhances partners’ commitment to the alliance”*. The variability of the agreement at the sample level is illustrated in Figure 5-6. Therefore, the alternative hypothesis has accepted.



**Figure 5-6 Frequencies of Observed and Expected Responses for Trust Factor**

In order to explore more in-depth results, another two hypotheses are provided to evaluate the difference in opinions in relation to the trust factor. Adopting the following proportions is based on frequencies (see table 5-14) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are:

*H<sub>0</sub>: 70% of the members of the alliance agree with trust statement and 10% of the alliance members have neutral opinions of the trust statement.*

*H<sub>1</sub>: 70% of the members of the alliance do not have agreement with the trust statement and 10% of the alliance members do not have neutral opinions of the trust statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of trust occur with the specified probabilities.	One-Sample Chi-Square Test	.883	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

It is clear that by comparing the responses (agree and neutral), the null hypothesis is accepted at the significance level is (.05%), which notes that 70% of the alliance members agreed with the trust statement: “*trust enhances partners’ commitment to the alliance*”. Furthermore, 10% selected a neutral opinion regarding the statement. Therefore, the alternative hypothesis has rejected, while the finding of this analysis is not significant at significance level (Sig =.88).

Therefore, 70% of alliance members believe that trust plays a role in enhancing partners’ commitment in the SA, and 10% of those members have neutral opinions, which could be affected by their experience within the alliance. However, nobody has selected (disagree or strongly disagree) on the scale.

#### **5.4.2.2.2 Commitment**

In this factor, two hypotheses are assumed; the first hypothesis presumes that all alliance members are equal at the Likert-scale points. Whilst, the second hypothesis is formulated on the basis that there are differences in the responses at the Likert-scale points. Below hypotheses are provided below.

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “commitment helps the building of relationships within the strategic alliance”.*

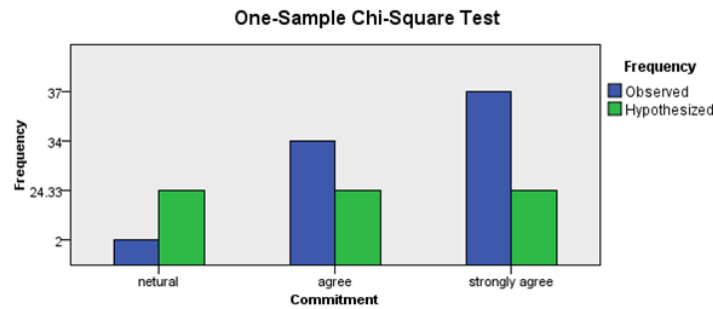
$H_1$ : All members of the alliance do not have an equal probability accepting or rejecting the statement “commitment helps the building of relationships within the strategic alliance”.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Commitment occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results are demonstrated in the chi-square test cell above, which shows the null hypothesis is rejected as the significance level is (.05%), which denotes that the opinions of alliance members have statically significant variation in agreeing with the statement “commitment helps the building of relationships within the strategic alliance”. The unevenness of the agreement at the sample level is shown in Figure 5-7. As a result, the alternative hypothesis is accepted.



**Figure 5-7 Frequencies of Observed and Expected Responses for Commitment Factor**

More robust results can be gained by running another Chi-square test for another two hypotheses. This stage evaluates the difference in opinions, which relate to the commitment factor. Adopting the following proportions is based on frequencies (see table 5-15) of the sample. The importance of this stage is to examine the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). The following two hypotheses are as follows:

$H_0$ : 50% of the members of the alliance strongly agree with the statement, and 5% of the alliance members have a neutral opinion of the statement.

$H_1$ : 50% of the members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not have a neutral opinion of the statement.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Commitment occur with the specified probabilities.	One-Sample Chi-Square Test	.389	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

As it can be seen in the test cell, the findings are fundamentally positive, where the null hypothesis is accepted at the significance level of (.05%) and the alternative hypothesis is rejected. This indicates that 50% of alliance members strongly agree with the commitment statement “*commitment helps to build relationships within the strategic alliance*” and 5% indicated a neutral opinion. The findings point out that there is dissimilarity in alliance members’ opinions. Importantly, the findings at this stage are not statistically significant (Sig. =.38).

According to the findings above, 50% of the alliance members agreed with the commitment statement and 5% of participants indicated a neutral opinion. This may be because they need more experience with this type of strategy. In contrast, nobody selected the ‘disagree’ or ‘strongly disagree’ option on the scale.

#### 5.4.2.2.3 Mutual Communication

According to the communication factor, two hypotheses have been formulated; the first hypothesis stated that all members of the strategic alliance have an equal probability of agreeing or rejecting the communication statement “*Communication has helped to exchange the learning of skills between partners*”. The second hypothesis stated that all the members of the alliance do not have an equal probability of agreeing and rejecting the communication statement mentioned above. Both hypotheses are detailed as follows.

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “Communication has helped to exchange the learning of skills between partners”.*

*H<sub>1</sub>: All the members of the alliance do not have an equal probability of accepting or rejecting the statement “Communication has helped to exchange the learning of skills between partners”.*

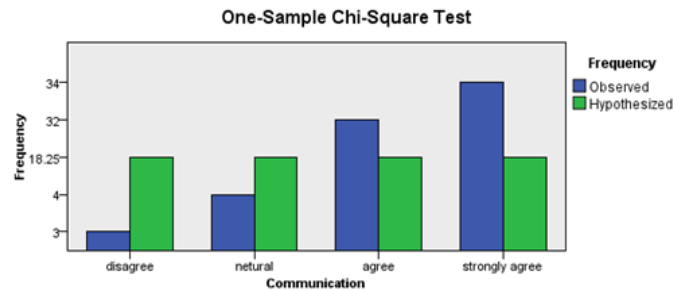
Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Communication occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

This result is shown in the Chi-square test cell, where the rejection of the null hypothesis is clear at the significance level (.05%). This means that there are obvious, statically significant differences in the

opinions of alliance members through their agreement with the communication statement “*Communication has helped to exchange the learning of skills between partners*”. The variance of agreement in the sample level is demonstrated in Figure 5-8. Therefore, the alternative hypothesis is accepted.



**Figure 5-8 Frequencies of Observed and Expected Responses for Mutual Communication Factor**

To gain more coherent findings, two hypotheses have been stated to evaluate the variance amongst alliance members’ opinions in relation to the communication factor. Adopting the following proportions is based on frequencies (see table 5-16) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are:

*H<sub>0</sub>: 47% of members of the alliance have strongly agreed with the statement, and 4% of alliance members have disagreed with the statement.*

*H<sub>1</sub>: 47% of members of the alliance do not strongly agree with the statement, and 4% of alliance members do not disagree with the statement.*

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Communication occur with the specified probabilities.	One-Sample Chi-Square Test	.952	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

It is obvious that, by evaluating the opinions of alliance members, the null hypothesis is accepted at the significance level (.05%), which notes that 47% of alliance members strongly agreed with the communication statement “*Communication has helped to exchange the learning of skills between partners*” and 4% disagreed with the statement. Therefore, the alternative hypothesis is rejected, whilst the findings obtained by this analysis appear to be not significant, at a significance level (Sig. =.95).

In general, 47% of the strategic alliance members agree that the communication statement is important for the alliance’s success, while 4% of those members disagree with the statement. This indicates that, based on their experience, they might not be believing that sharing all information is important to achieve a successful alliance. However, nobody selected the strongly disagree point on the scale.

#### 5.4.2.2.4 Knowledge Sharing

For the knowledge-sharing factor, two hypotheses were formulated to determine whether alliance members have an equal (or not) probability of agreeing or rejecting the statement on knowledge sharing “*knowledge sharing has increased the value created by the alliance*”. These two hypotheses are included below.

*H<sub>0</sub>: All the members of the alliance have an equal probability of accepting or rejecting the statement “knowledge sharing has increased the value created by the alliance”.*

*H<sub>1</sub>: All the members of the alliance do not have an equal probability of accepting or rejecting the statement “knowledge sharing has increased the value created by the alliance”.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Knowledge sharing occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to these results, which are provided in the Chi-square test cell, the null hypothesis is rejected; therefore, the alternative hypothesis is accepted at the significance level (.05%). These results indicate that the opinions of alliance members are significantly differentiated in agreeing with the knowledge sharing statement “*knowledge sharing has increased the value created by the alliance*”. This variance at the sample level is illustrated in Figure 5-9.

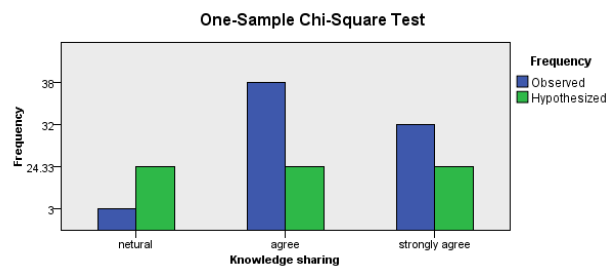


Figure 5-9 Frequencies of Observed and Expected Responses for Knowledge Sharing Factor

At this stage, to achieve strong findings, the researcher stated another two hypotheses to evaluate the differences amongst alliance members' opinions in relation to the knowledge-sharing factor. Adopting the following proportions is based on frequencies (see table 5-17) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are:

*H<sub>0</sub>: 50% of the alliance members agree with the statement, and 5% of the alliance members have a neutral opinion of the statement.*

*H<sub>1</sub>: 50% of the alliance members do not agree with the statement, and 5% of the alliance members have a neutral opinion of the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Knowledge sharing occur with the specified probabilities.	One-Sample Chi-Square Test	.693	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

It is clear from evaluating alliance members' opinions that the null hypothesis is accepted at the significance level (.05%), while the alternative hypothesis is rejected. These findings have shown that 50% of alliance members agree with the knowledge sharing statement “*knowledge sharing has increased the value created by the alliance*”, whereas 5% chose a neutral opinion. Thus, the findings that result from this analysis are not considered significant at the significance level (Sig. =.69).

As a result, 50% of alliance members agree with the knowledge sharing and thus, knowledge sharing is a fundamental BSF for SRAs. Moreover, 5% indicated a neutral opinion of the statement. These findings determine that knowledge sharing helps alliance staff to obtain skills and innovative ideas, which can address the challenges facing the alliance process. In contrast, nobody selected the strongly agree or disagree options.

#### **5.4.2.2.5 Mutual Dependency**

According to the importance of the mutual dependency factors, the researcher designed two hypotheses to determine whether the agreement and rejection amongst alliance members is equal or not regarding to the mutual dependency statement “*Mutual dependency has helped to build trust*”. These two hypotheses are provided below.



$H_0$ : All members of the alliance have an equal probability of accepting or rejecting the statement “Mutual dependency has helped to build trust”.

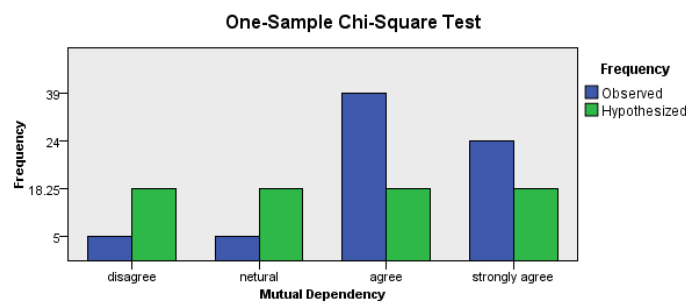
$H_1$ : All the members of the alliance do not have an equal probability of accepting or rejecting the statement “Mutual dependency has helped to build trust”.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Mutual Dependency occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The Chi-square analysis cell illustrates that the null hypothesis is rejected at the significance level (.05%). It highlights that the alliance members’ opinions have significant variability when agreeing with the mutual dependency statement “Mutual dependency has helped to build trust”. Thus, the alternative hypothesis was accepted, and the opinions at the sample level are shown in Figure 5-10.



**Figure 5-10** Frequencies of Observed and Expected Responses for Mutual Dependency Factor

Gaining in-depth findings can be achieved by adopting another two hypotheses in order to evaluate the variance in the opinions amongst alliance members in relation to the mutual dependency factor. Adopting the following proportions is based on frequencies (see table 5-18) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). Both hypotheses are included as follows:

$H_0$ : 53% of members of the alliance agree with the statement, and 5% of the alliance members disagree with the statement.

$H_1$ : 53% of members of the alliance do not agree with the statement, and 5% of the alliance members do not disagree with the statement.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Mutual Dependency occur with the specified probabilities.	One-Sample Chi-Square Test	.517	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The Chi-square analysis cell shows that the findings can be considered positive, and thus the null hypothesis is accepted at the significance level (.05%) and the alternative hypothesis is rejected. These findings indicate that 53% of alliance members agreed with the mutual dependency statement “*Mutual dependency has helped to build trust*”, and 5% disagreed. The results showed that there are small differences in alliance members’ opinions. Therefore, the findings are not considered statistically significant (Sig =.51).

Thus, 53% of the alliance members consider that the mutual dependency is one of the alliance success elements, whilst 5% disagreed with the statement. This suggests that the importance of the mutual dependency factor stems from the level of trust built between alliance partners. However, nobody selected the strongly disagree item on the statement.

#### 5.4.2.2.6 Openness to Challenge

In this factor, the researcher was trying to gather stronger findings, thus two hypotheses were stated to investigate whether the alliance member opinions have an equal probability (or not) of agreeing or rejecting the statement regarding openness to challenge: “*Challenging partners’ ideas has helped to achieve the right decision*”. The two hypotheses are:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “Challenging partners’ ideas has helped to achieve the right decision”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “Challenging partners’ ideas has helped to achieve the right decision”.*

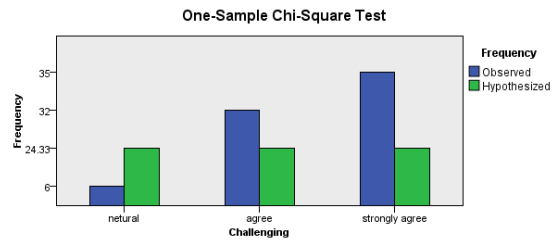
**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Challenging occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The results in the Chi-square analysis cell clearly showed that the null hypothesis was rejected; however, the alternative hypothesis was accepted at the significance level (.05%). These results indicate that the opinions amongst alliance members significantly varied when considering the statement

concerning openness to challenge: “Challenging partners’ ideas has helped to achieve right decision”. This difference of the opinion is demonstrated in Figure 5-11.



**Figure 5-11 Frequencies of Observed and Expected Responses for Openness to Challenge Factor**

Achieving more robust findings can be achieved by designing another two hypotheses in order to evaluating the differences amongst alliance member opinions relating to the openness to challenge factor. Using the following proportions is based on frequencies (see table 5-19) of the sample. The importance of this stage is to examine the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). Both two hypotheses are provided as follows.

*H<sub>0</sub>: 47% of members of the alliance strongly agree with the statement, and 10% of alliance members have a neutral opinion of the statement.*

*H<sub>1</sub>: 47% of members of the alliance do not strongly agree with the statement, and 10% of alliance members do not have a neutral opinion of the statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Challenging occur with the specified probabilities.	One-Sample Chi-Square Test	.624	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

In evaluating the opinions of alliance members, the null hypothesis was accepted at the significance level (.05%), which records that 47% of members strongly agreed with the openness to challenge statement “Challenging partners’ ideas has helped to achieve the right decision”, while 10% selected the neutral option on the scale. Thus, the alternative hypothesis was rejected. Otherwise, the findings of this part of the analysis are not significant at the significance level (Sig =.62)

Therefore, 47% of alliance members agreed with the statement regarding the openness to challenge, whilst 10% selected the neutral opinion. This suggests that challenging partners’ ideas is considered one

of the BSFs. Moreover, it can enhance the relationships inside an alliance in order to achieve appropriate decisions. However, nobody selected disagree and strongly disagree.

#### 5.4.2.2.7 Understanding Alliance Objectives

Two main hypotheses were stated by the researcher on ‘understanding alliance objectives’ factor. This aimed to determine whether the alliance members’ opinions were equal or not in terms of whether they agreed and disagreed with the statement “*Understanding alliance objectives has made staff work together as a team*”. Both two hypotheses are included as follows.

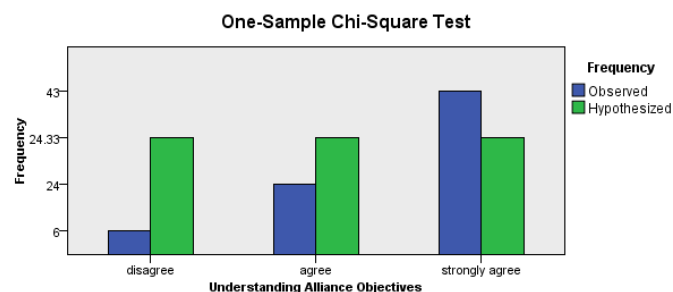
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “Understanding alliance objectives has made staff work together as a team”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “Understanding alliance objectives has made staff work together as a team”.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Understanding Alliance Objectives occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to these results, which are included in the Chi-square analysis cell, the null hypotheses was rejected, which means that the alternative hypothesis was accepted at the significance level (.05%). These results explain that alliance member opinions statistically vary in relation to the statement concerning the understanding alliance objectives: “*Understanding alliance objectives has made staff work together as a team*”. These differences at the sample level are shown in Figure 5-12.



**Figure 5-12 Frequencies of Observed and Expected Responses for Understanding alliance objectives Factor**

To obtain more significant findings, the researcher another adopted two hypotheses to evaluate the differentiated alliance member opinions regarding the understanding alliance objectives factor. Using the

following proportions is based on frequencies (see table 5-20) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are provided as follows.

*H<sub>0</sub>: 58% of members of the alliance strongly agree with the statement, and 10% of alliance members disagree with the statement.*

*H<sub>1</sub>: 48% of members of the alliance do not strongly agree with the statement, and 10% of alliance members do not disagree with the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Understanding Alliance Objectives occur with the specified probabilities.	One-Sample Chi-Square Test	.627	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

By conducting the Chi-square test, it is obvious that the null hypothesis was accepted at the significance level (.05%) and the alternative hypothesis was rejected. These given findings note that 58% of alliance members strongly agreed with the statement on understanding the alliance objectives: “*Understanding alliance objectives has made staff work together as a team*”. Moreover, 10% disagreed with the same statement. These findings are illustrated with massive variance in the member opinions. Therefore, these findings are statistically not significant (Sig =.62).

In general, 58% of alliance members agreed with the statement, whilst 10% of the members disagreed. Thus, understanding alliance objectives helps to build trust and commitment, and as such, the project can be delivered by working as a team. However, those who disagreed might believe that understanding the alliance objective is not significant for the alliance’s success as a team. In contrast, no members selected neutral and strongly disagree.

#### **5.4.2.2.8 Constructive Conflict**

The researcher established two hypotheses to specify whether alliance members were equally likely to agree or reject the statement concerning constructive conflict: “*healthy discussions (constructive conflict) have helped to build relationships between partners*”. Here, these two hypotheses are listed.

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “healthy discussions (constructive conflict) have helped to build relationships between partners”.*

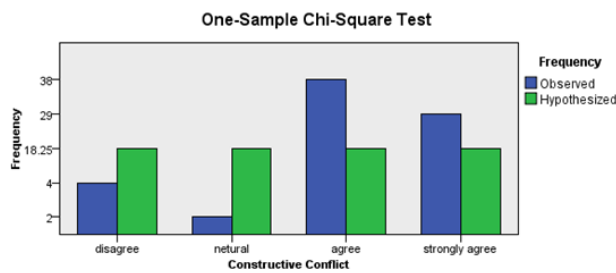
*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “healthy discussions (constructive conflict) have helped to build relationships between partners”.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Constructive Conflict occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results illustrate that the null hypothesis was rejected, which indicates that the alliance member opinions are not equal, but rather that they are differentiated in agreeing to the statement regarding constructive conflict: “healthy discussions (constructive conflict) have helped to build relationships between partners”, While, the alternative hypothesis has accepted at significance level (.05%). This variance can be shown in Figure 5-13 below.



**Figure 5-13 Frequencies of Observed and Expected Responses for Constructive Conflict Factor**

Designing another two hypotheses to assess diversity amongst the opinions of alliance members regarding constructive conflict can develop further in-depth findings. Adopting the following proportions is based on frequencies (see table 5-21) of the sample. The importance of this stage is to examine the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). Both hypotheses are provided below.

*H<sub>0</sub>: 50% of members of the alliance agree with the statement, and 5% of alliance members have a neutral opinion of the statement.*

*H<sub>1</sub>: 50% of members of the alliance do not agree with the statement, and 5% of alliance members do not have a neutral opinion of the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Constructive Conflict occur with the specified probabilities.	One-Sample Chi-Square Test	.368	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Through using Chi-square test at this stage, the findings show that the null hypothesis was accepted at the significance level (.05%), and the alternative hypothesis was rejected. The findings illustrate that 50% of the members agree with the statement regarding constructive conflict: *“healthy discussions (constructive conflict) have helped to build relationships between partners”*. In comparison, just 5% had a neutral opinion regarding the statement. Therefore, the findings are considered not significant at the significance level (Sig =.36).

As a result, 50% of the alliance members agree that constructive conflict is a fundamental requirement for generating more creative ideas which could improving the quality of decisions made in delivering the performance of SRAs successfully. In comparison, 5% of those members selected neutral on the scale in which they could think like other members who are chosen disagreement with statement, constructive conflict can cause frustration of partners relationships. However, no member selected ‘strongly disagree’.

#### **5.4.2.2.9 Teamwork**

The importance of this factor can be determined through conducting more inferential tests. Two hypotheses were designed by the researcher to understand whether the members of the alliance have an equal (or not) probability of agreeing and rejecting the statement of working as a team: *“Working as a team has improved the quality of a project more than working individually”*. Both hypotheses discussed are included below.

*H<sub>0</sub>: All the members of the alliance have an equal probability of accepting or reject the statement “Working as a team has improved the quality of project more than working individually”.*

*H<sub>1</sub>: All the members of the alliance do not have an equal probability of accepting or rejecting the statement “Working as a team has improved the quality of project more than working individually”.*

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Teamwork occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

It is highlighted that the results that in the Chi-square cell demonstrate that the null hypothesis has been rejected, and the alternative hypothesis has been accepted at the significance level (.05%). These results point out that alliance members have fluctuations in their opinions in relation to the statement of the working as a team: “Working as a team has improved the quality of project more than working individually”. This is shown in Figure 5-14.

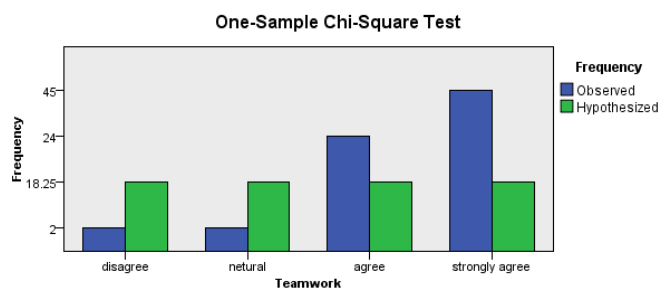


Figure 5-14 Frequencies of Observed and Expected Responses for Teamwork Factor

Strong findings can be achieved by formulating another two specific hypotheses in order to evaluate the variability in alliance member opinions regarding teamwork factor. Using the following proportions is based on frequencies (see table 5-22) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These hypotheses are as follows.

$H_0$ : 60% of the members of the alliance strongly agree with the statement, and 5% of the alliance members disagree with statement.

$H_1$ : 60% of the members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not disagree with statement.

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Teamwork occur with the specified probabilities.	One-Sample Chi-Square Test	.377	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.



The Chi-square cell shows positive findings; thus, the null hypothesis is accepted at the significance level (.05%), while the alternative hypothesis has rejected. These findings indicate that 60% of alliance members strongly agree with statement on teamwork factor “*Working as a team has improved the quality of project more than working individually*”, whilst 5% disagree with it. These findings illustrate a slight variance in opinions. Thus, the findings of this stage are considered not statistically significant (Sig = .37).

Therefore, 60% of the alliance members believe that working in a collective team with partners can achieve more successes than working alone; this can be enabled by gaining different experiences by dealing with a range of different experts. However, 5% of those members could think that working with a team will break down the ability of showing developed skills and experiences. Finally, nobody selected ‘strongly disagree’ on the scale.

#### 5.4.2.2.10 Leadership

In this factor, the researcher explores the results for the leadership factor further by stating two hypotheses to determine whether alliance members have an equal probability of agreeing or not to the statement regarding leadership: “*good leadership is important to create an alliance vision*”. Both hypotheses are included below:

*H<sub>0</sub>: All the members of the alliance have an equal probability of accepting or rejecting the statement “good leadership is important to create an alliance vision”.*

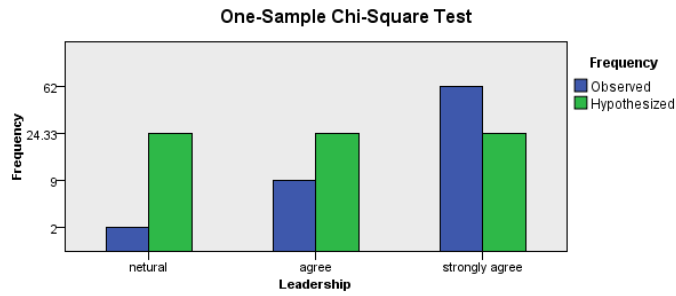
*H<sub>1</sub>: All the members of the alliance do not have an equal probability of accepting or rejecting the statement “good leadership is important to create an alliance vision”.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Leadership occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Importantly, the results from the Chi-square cell show that the null hypothesis has been rejected, and the alternative hypothesis accepted at the significance level (.05%). It is clear in Figure 5-15 that there is variance in the alliance member opinions relating to statement on the leadership factor: “*good leadership is important to create an alliance vision*”.



**Figure 5-15 Frequencies of Observed and Expected Responses for Leadership Factor**

To gain more robust findings, the researcher has generated another two hypotheses to evaluate various in alliance member opinions regarding the leadership factor. Adopting the following proportions is based on frequencies (see table 5-23) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are included below.

*H<sub>0</sub>: 85% of members of the alliance strongly agree with the statement, and 5% of alliance members have a neutral opinion of the statement.*

*H<sub>1</sub>: 85% of members of the alliance do not strongly agree with the statement, and 5% of alliance members do not have a neutral opinion of the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Leadership occur with the specified probabilities.	One-Sample Chi-Square Test	.396	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

By evaluating these opinions using a Chi-square test, the findings show that the null hypothesis was accepted at the significance level (.05%), which indicates that 85% of the members strongly agree with the leadership statement “*good leadership is important to create an alliance vision*”. While, 5% have a neutral opinion related to the statement. In other words, the alternative hypothesis is rejected. Therefore, the findings of this analysis do not appear to be statistically significant at the significance level (Sig =.39).

In total, 85% of the alliance members believe that good leadership is of the keys to SA performance success; indeed, wise leadership gathers all creative ideas and direct them into formulating a successful strategic vision for the alliance, as well as supporting members to work together and provide a good environment to develop their abilities to deliver the alliances’ performance successfully. In comparison, 5% of the members might not have a full understanding of the role of strategic leadership and the

organisational process. Moreover, alliance members did not select ‘strongly disagree’ or ‘disagree’ on the scale.

#### 5.4.2.2.11 Aligned Partners’ Objectives

Two hypotheses are generated in this factor; these hypotheses aim to determine whether alliance members have an equal probability or not of or rejecting the statement concerning the aligned partners’ objectives factor: “aligned objectives between partners have led to project success”. Both hypotheses are described below:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “aligned objectives between partners have led to project success”.*

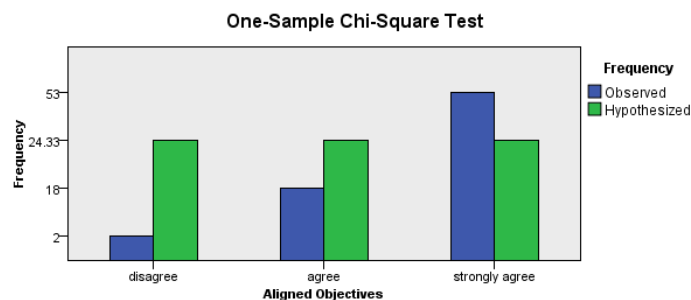
*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “aligned objectives between partners have led to project success”.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Aligned Objectives occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

At this stage, a null hypothesis is rejected as shown in the Chi-square cell, while the alternative hypothesis is accepted at the significance level (.05%). It should be argued that the opinions of alliance members are differentiated in relation to the statement on the aligned partners’ objective factor “aligned objectives between partners have led to project success” which can be seen in Figure 5-16.



**Figure 5-16 Frequencies of Observed and Expected Responses for Aligned Partners’ Objectives Factor**

The findings are illustrated in the figure above, which shows the variance of member opinions; therefore, the researcher sought to strengthen the results by designing another two hypotheses to evaluate the variance in relation to the statement of the aligned objectives factor. Selecting the following

proportions is based on frequencies (see table 5-24) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are provided below:

*H<sub>0</sub>: 70% of members of the alliance strongly agree with the statement, and 5% of the alliance members disagree with the statement.*

*H<sub>1</sub>: 70% of members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not disagree with the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Aligned Objectives occur with the specified probabilities.	One-Sample Chi-Square Test	.368	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to the findings in the Chi-square cell, the null hypothesis is accepted at the significance level (.05%), and the alternative hypothesis is rejected. It is clear that 70% of alliance member opinions strongly agree with the aligned partners’ objectives factor: “*aligned objectives between partners have led to project success*”. However, just 5% disagreed with that statement. Therefore, these findings are not considered statistically significant at the significance level (Sig =.36).

Generally, 70% of members completely believe that aligning partners’ objectives within a SA supports the success of an alliance performance. In contrast, 5% believed that aligning objectives is not the main element for an alliance success. There are several essential reasons for this element, which can support an alliance’s success. Finally, nobody selected ‘neutral’ and ‘strongly disagree’.

#### **5.4.2.2.12 Aligned Partners’ Visions**

In this factor, the researcher has stated two hypotheses; the importance of the hypotheses stem from the desire of the researcher to know whether alliance members have an equal probability of agreeing or rejecting the statement of aligned partners’ vision: “*an aligned vision between partners has led to the project success*”. Both hypotheses are provided below:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “an aligned vision between partners has led to the project success”.*

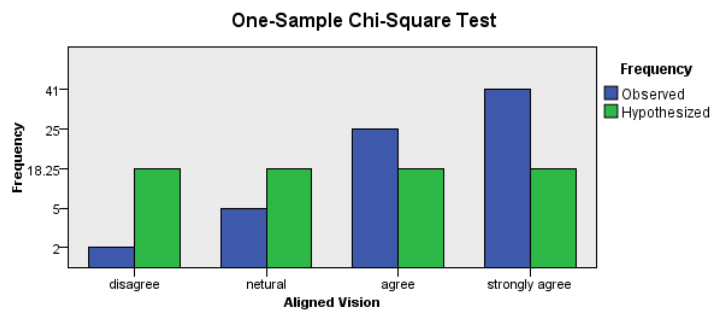
*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “an aligned vision between partners has led to the project success”.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Aligned Vision occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

From this analysis, the null hypothesis was rejected, and the alternative hypothesis was accepted at the significance level (.05%), which denotes that the opinions of alliance members are uneven regarding alignment of the partners’ visions statement “*an aligned vision between partners has led to the project success*” these differences are illustrated in Figure 5-17.



**Figure 5-17 Frequencies of Observed and Expected Responses for Aligned Partners’ Visions Factor**

The researcher, at this stage, tries to make the findings more solid, thus another two hypotheses are established to evaluate the differences amongst alliance members’ opinions in relation to the statement concerning the aligned partners’ visions factor. Choosing the following proportions is based on frequencies (see table 5-25) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These hypotheses are included below:

*H<sub>0</sub>: 55% of members of the alliance strongly agree with the statement, and 5% of the alliance members disagree with statement.*

*H<sub>1</sub>: 55% of members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not disagree with statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Aligned Vision occur with the specified probabilities.	One-Sample Chi-Square Test	.382	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Given these findings, it is clear that a null hypothesis was accepted at the significance level (.05%), while the alternative hypothesis was rejected. Moreover, 55% of the alliance members strongly agree with the statement concerning the aligned partners' visions statement "*an aligned vision between partners has led to the project success*" whilst 5% disagreed with the statement. Otherwise, these findings cannot be considered statistically significant at the significance level (Sig =.38).

Thus, 55% of the alliance members are convinced that the unification of partners' visions is an appropriate way to achieve a success for the performance of SRAs and to strengthen relationships between members; however, 5% believed that aligning the partners' visions is not a fundamental matter for the alliance's success. Finally, nobody selected 'strongly disagree' on the scale.

#### 5.4.2.2.13 Selecting Right Partners

This factor is important as one of the main behavioural success factors for the SRAs success; however, the researcher sought proof regarding this importance by conducting inferential tests which saw the design of two hypotheses to determine if alliance members have an equal of probability of agreeing or rejecting the statement concerning the selection of appropriate partners: "*selecting the right partners was important to the alliance's success*". These two hypotheses are provided as follows:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement "selecting the right partners was important to the alliance's success".*

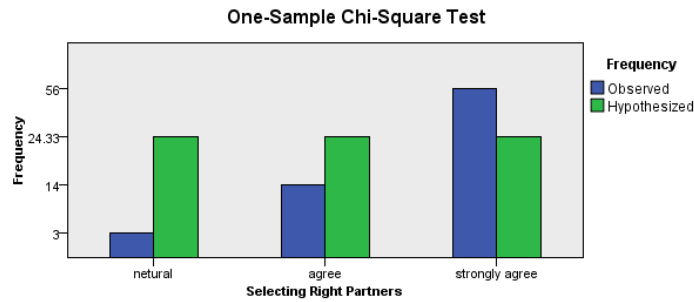
*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement "selecting the right partners was important to the alliance's success".*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Selecting Right Partners occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The Chi-square test cell demonstrates that the null hypothesis was rejected, whilst the alternative hypothesis was accepted at significance level (.05%). These results show that there is fluctuation in alliance members' opinions regarding the statement of selecting the right partner. "*selecting the right partners was important to the alliance's success*". These results can be seen in Figure 5-18.



**Figure 5-18 Frequencies of Observed and Expected Responses for Selecting Right Partners Factor**

In order to obtain more solid findings, the researcher stated another two hypotheses to evaluate the variance amongst alliance members' opinions regarding the statement on the selecting the right partners. Using the following proportions is based on frequencies (see table 5-26) of the sample. The importance of this stage is to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). Both hypotheses are as follows:

*H<sub>0</sub>: 75% of members of the alliance strongly agree with the statement, and 5% of alliance members have a neutral opinion to the statement.*

*H<sub>1</sub>: 75% of members of the alliance do not strongly agree with the statement, and 5% of alliance members do not have a neutral opinion to the statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Selecting Right Partners occur with the specified probabilities.	One-Sample Chi-Square Test	.712	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These findings explain that the null hypothesis was accepted at the significance level (.05%), which indicates that 75% of those members strongly agreed with the statement of selecting the right partners “selecting the right partners was important to the alliance success” and 5% selected a neutral opinion. Therefore, the alternative hypothesis was rejected. As a result, these findings are not statistically significant at the significance level (Sig =.71).

Therefore, 75% of alliance members believe that selecting the right partners is a fundamental requirement for a successful SA performance, whereas 5% indicate that selecting the right partner may be important or not based on their experience. In contrast, both options ‘disagree’ and ‘strongly disagree’ were not selected.

#### 5.4.2.2.14 Training

In this factor, the researcher sought to determine whether the alliance members have an equal probability or not in agreeing or rejecting the statement regarding training “*training on the alliance operation has enhanced self-awareness amongst partners*” formulating two hypotheses. These hypotheses are as follows:

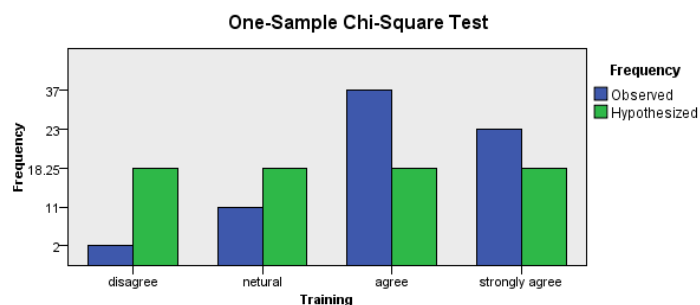
$H_0$ : All members of the alliance have an equal probability of accepting or rejecting the statement “*training on the alliance operation has enhanced self-awareness amongst partners*”.

$H_1$ : All members of the alliance do not have an equal probability of accepting or rejecting the statement “*training on the alliance operation has enhanced self-awareness amongst partners*”.

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Training occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

This analysis illustrates that the null hypothesis was rejected, and the alternative hypothesis was accepted at significance level (.05%), which notes that the opinions of alliance members are uneven regarding the training factor statement “*training on the alliance operation has enhanced the self-awareness amongst partners*”. This variability of opinions is shown in Figure 5-19.



**Figure 5-19** Frequencies of Observed and Expected Responses for Training Factor

The researcher generated two hypotheses to evaluate the differentiation in member opinions regarding the training factor. Adopting the following proportions is based on frequencies (see table 5-27) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These hypotheses are included below:



*H<sub>0</sub>: 50% of members of the alliance agree with the statement, and 5% of alliance members disagree with the statement.*

*H<sub>1</sub>: 50% of members of the alliance do not agree with the statement, and 5% of alliance members do not disagree with the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Training occur with the specified probabilities.	One-Sample Chi-Square Test	.389	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Regarding the findings in the analysis cell above, the null hypothesis was accepted at a significance level (.05%), while the alternative hypothesis was rejected. It should be highlighted that 50% of alliance members agree with the training factor statement “*training on the alliance operation has enhanced self-awareness amongst partners*” whereas 5% disagreed with the statement. Otherwise, statistically these findings are not significant at the significance level (Sig =.38).

Therefore, 50% of alliance members are convinced that training is important for alliance staff; this helps them to understand all the requirement and policies which thereby enables them to face challenges more easily and conduct training workshops that promote building of relationships among partners. However, 5% of members do not believe that training is important in enhancing self-awareness; instead they may believe that such knowledge and experience comes at the first stage. In contrast, ‘strongly disagree’ has not been chosen by any members.

**5.4.2.2.15 Non-Coercive Power (Democratic Power)**

In this part, the researcher seeks to know if alliance members have an equal probability or not of agreeing or rejecting the statement regarding non-coercive power: “*non-coercive power (democratic power) was critical to achieve an effective decision-making process*”. As such, two hypotheses have been established to further examine this argument; these two hypotheses are provided below:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “non-coercive power (democratic power) was critical to achieve an effective decision-making process”.*

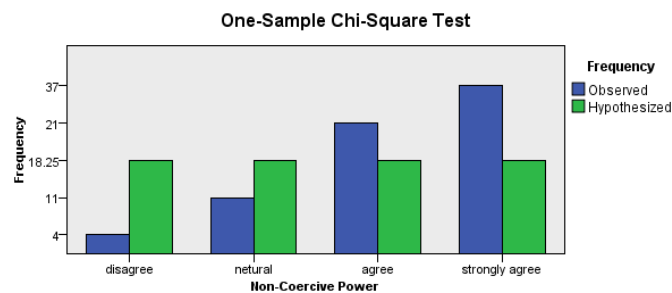
$H_1$ : All members of the alliance do not have an equal probability of accepting or rejecting the statement “non-coercive power (democratic power) was critical to achieve an effective decision-making process”.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Non-Coercive Power occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results have shown that the null hypothesis was rejected, and then the alternative hypothesis was accepted at the significance level (.05%), which denotes that the variance in alliance members’ opinion is obvious in relation to the statement on non-coercive power: “non-coercive power (democratic power) was critical to achieve an effective decision-making process”. To clarify this variance, Figure 5-20 is shown below.



**Figure 5-20 Frequencies of Observed and Expected Responses for Non-Coercive Power Factor**

To gain more robust findings, another two inferential hypotheses are generated to evaluate the variance amongst member opinions regarding the statement on non-coercive power. Selecting the following proportions is based on frequencies (see table 5-28) of the sample. The importance of this stage is to examine the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These hypotheses are as follows:

$H_0$ : 50% of members of the alliance strongly agree with the statement, and 10% of alliance members disagree with the statement.

$H_1$ : 50% of members of the alliance do not strongly agree with the statement, and 10% of alliance members do not disagree with the statement.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Non-Coercive Power occur with the specified probabilities.	One-Sample Chi-Square Test	.235	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These findings are illustrated in the Chi-square test cell above, which shows that the null hypothesis was accepted at the significance level (.05%), and the alternative hypothesis was rejected. It is important that 50% of the alliance members strongly agreed with the statement on non-coercive power “*non-coercive power (democratic power) was critical to achieve an effective decision-making process*” whilst 10% disagreed. In contrast, the findings at this stage are not statistically significant at the significance level (Sig =.23).

In general, 50% of the alliance members believed that decision-making in the alliance was better conducted within a supportive environment that encouraged the sharing of different ideas across a range of alliance levels and that this support a successful alliance. In contrast, those who disagreed (10%) might feel that hierarchical relationships and a clear distribution of tasks are a more appropriate way to manage projects. However, nobody from the alliance members chose ‘strongly disagree’ in the questionnaire.

#### 5.4.2.2.16 Partners’ Interaction

Here, the researcher aimed to determine whether alliance members were equally likely to accept or reject the statement concerning the interaction factor: “*interaction between partners enhances the alliance success*”. The following two hypotheses were adopted to prove this matter.

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “interaction between partners enhances the alliance success”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “interaction between partners enhances the alliance success”.*

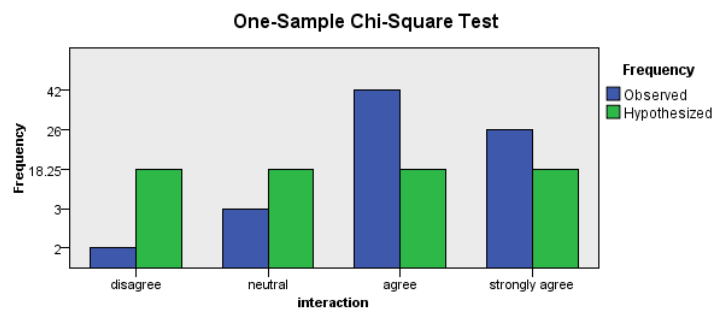
**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of interaction occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

This cell of the analysis illustrate that the null hypothesis was rejected at the significance level (.05%), which suggests that there is a difference in terms of the opinions of alliance members regarding the

statement “*interaction between partners enhances the alliance success*”. At the same time, the alternative hypothesis was accepted. A clear illustration of the results is provided in Figure 5-21.



**Figure 5-21** Frequencies of Observed and Expected Responses for Partners’ Interaction Factor

Positive findings can be obtained by applying another two hypotheses and by running a stronger test to assess the diversity amongst alliance members’ opinions. Choosing the following proportions is based on frequencies (see table 5-29) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%).

*H<sub>0</sub>: 55% of members of the alliance agree with the statement, and 5% of the alliance members disagree with statement.*

*H<sub>1</sub>: 55% of members of the alliance do not agree with the statement, and 5% of the alliance members do not disagree with statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of interaction occur with the specified probabilities.	One-Sample Chi-Square Test	.433	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The findings at this stage show that the null hypothesis was accepted at the significance level (.05%), while the alternative hypothesis was rejected. Therefore, 55% of alliance members agreed with the statement regarding the interaction factor “*interaction between partners enhances the alliance success*” and 5% disagreed with the statement. Therefore, the findings cannot be considered statistically significant at the significance level (Sig =.43).

Thus, 55% of alliance members believed that interaction amongst partners can motivate the success of an alliance performance. Sharing knowledge, skills and experience among partners depends on the amount of trust, which is responsible for generating a spirit of interaction. However, 5% of alliance

members may be of the view that a commitment to alliance regulations is an essential element to create interactions between partners. Finally, nobody selected the ‘strongly disagree’ response to this question.

#### 5.4.2.2.17 Behavioural Accommodation

It was necessary to determine the probability of alliance members' opinions regarding accommodation and whether they were equal or not “*accommodating partners inside the alliance helps the success of the project*”. The researcher designed two hypotheses to confirm this, which are provided below.

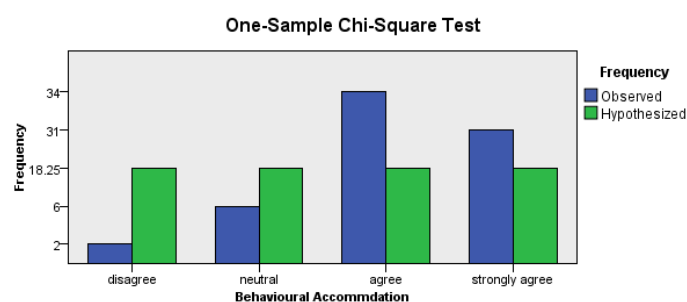
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “accommodating partners inside the alliance helps the of the success project”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “accommodating partners inside the alliance helps the of the success project”.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Behavioural Accommodation occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results show that the null hypothesis was rejected at the significance level (.05%), while the alternative was accepted. The different opinions amongst alliance members are illustrated with regard to the statement on the behavioural accommodation factor “*accommodating partners inside the alliance helps the success of the project*”. Figure 5-22 gives a more accurate explanation regarding this matter.



**Figure 5-22 Frequencies of Observed and Expected Responses for Behavioural Accommodation Factor**

Applying more robust tests to gain further findings is important. By designing another two hypotheses, the Chi-square test was applied to evaluate the members’ opinions regarding behavioural accommodation factor. Adopting the following proportions is based on frequencies (see table 5-30) of the sample. The importance of this stage is to examine the observed proportions in each level against the hypothesised

proportions in each level to see if they are significantly different at the significance level (.05%). The two new hypotheses are shown below:

*H<sub>0</sub>: 45% of members of the alliance strongly agree with the statement, and 5% of alliance members disagree with the statement.*

*H<sub>1</sub>: 45% of members of the alliance do not strongly agree with the statement, and 5% of alliance members do not disagree with the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Behavioural Accommodation occur with the specified probabilities.	One-Sample Chi-Square Test	.911	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to these findings, the null hypothesis was accepted at the significance level (.05%), which indicates that 45% of alliance members strongly agreed to the behavioural accommodation factor statement “*accommodating partners inside the alliance helps to deliver a successful alliance performance*”. Also, 5% of members disagreed with the statement; therefore, the alternative hypothesis was rejected. As a result, the findings are not statistically significant at the significance level (Sig =.91).

To summarise, 45% of members agreed that adaption within an alliance can motivate the desire to work as a team and enhance the importance of building trust by accommodating behaviours of members. In contrast, 5% may believe that achievement can be fulfilment by personal innovation and not by working together. Finally, the ‘strongly disagree’ option was not selected.

#### **5.4.2.3 Kruskal Wallis Test**

The Kruskal-Wallis H (KWT) test is a non-parametric test (sometimes called the ‘one-way ANOVA’ or ‘ranks test’). It is used to compare more than two independent groups of data without any limitations on the data distribution (Kruskal and Wallis, 1952). This test is often used to determine the statistically significant difference between categorical groups of data and continuous, dependent variables, particularly when the data is categorical or ordinal (for example, based on a Likert or ranked scale) (Meyer and Seaman, 2013).

At this stage, the experiences of the strategic alliance participants (question 3 in section 1) were taken into account when conducting this test. This is because the questions in the survey should be examined precisely based on the years of participants experience within the railway sector. Thus, this inferential test

will help to harvest accurate results. Based on these research assumptions, the alliance of participants' experiences represents the most substantial independent group to run this test. Through the KWT, using the significance level can enable the formation of an assumption. Therefore, the possibility of reaching a decision can be made on whether to retain a null hypothesis or accept an alternative hypothesis, according to the (*P*) value (Rumsey, 2007).

This test aims to obtain a clear picture as to whether there is any relationship between participants' experiences and retaining and rejecting the null hypothesis at the significance level (.05%). When rejecting the null hypothesis, this indicates that some of the means ranks are statistically different among these experience groups. The KWT in this phase cannot illustrate where the significant differences are or where the null hypothesis is rejected. Therefore, it is necessary to conduct a further test, called Dunn's Pairwise Comparison, as a post-hoc-test for non-parametric tests (Elliott and Hynan, 2011). Conducting a hoc-post-test means comparing more than two groups and that there is a significant difference between these group of experiences which points to the rejection of a null hypothesis (Dinno, 2015). Therefore, Dunn's Pairwise Comparisons will run through the KWT if the scores show that there is a significant difference between the given dependent variables and an incommensurate sample size (Ruxton and Beauchamp, 2008).

#### **5.4.2.3.1 Kruskal Wallis Test for Behavioural Success Factors**

The KWT test is conducted to determine whether there is any difference between the scores of the participants' experiences (in section 1 in the questionnaire), and their answers regarding the variables of behavioural success for strategic alliances. As shown in Table 5-31, there are significant dissimilarities between the group of participants' experiences and factor 8 of the BSFs, which states "*a healthy discussion (constructive conflict) has helped to build the relationships between partners*". This indicates that the null hypothesis is rejected in this factor, at  $X^2_{(8)} = 20.082$ ,  $P = .000$ ,  $df = 4$ . Moreover, factor 14 which states, "*training on the alliance operation has enhanced the self-awareness amongst partners*" differed between the group of participants' experiences, therefore, the null hypothesis was rejected at  $X^2_{(14)} = 12.219$ ,  $P = .016$ ,  $df = 4$ . Finally, factor 15 which stated, "*non-coercive power (democratic power) was critical to achieve an effective decision-making process*" differentiated among the group of participants' experiences, which denotes that the null hypothesis for this factor was rejected at  $X^2_{(15)} = 12.676$ ,  $P = .013$ ,  $df = 4$ .

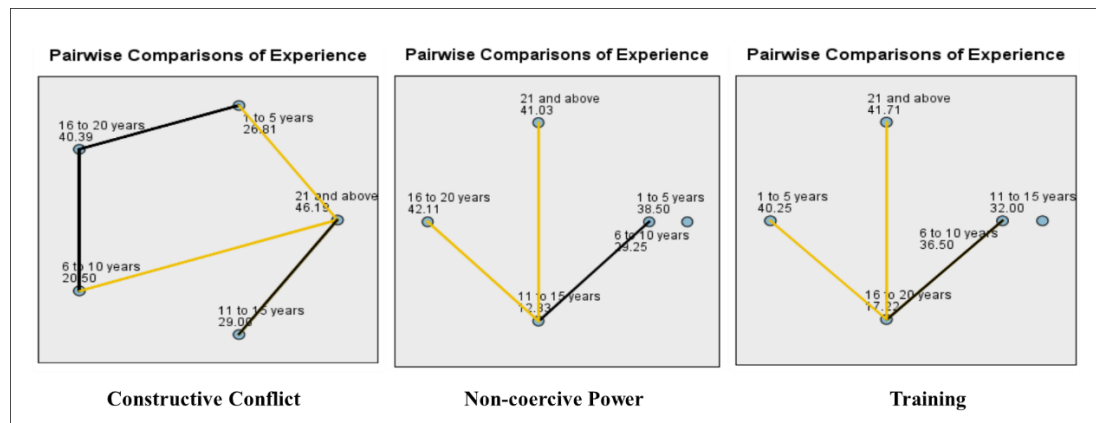
**Table 5-31 Kruskal-Wallis H Test for Behavioural Success Factors of the Strategic Alliance**

NO	Hypothesis	$\chi^2$	$P$	$df$	Accept or Reject (Null Hypothesis)
1	Trust other partners have enhanced commitment	8.592	.072	4	Accepted
2	Joint commitment has helped to build the relationship	5.514	.239	4	Accepted
3	Communication has helped to exchange learning the skills between partners	2.972	.563	4	Accepted
4	knowledge sharing has increased the value created by the alliance	2.341	.673	4	Accepted
5	Mutual dependence has helped build trust	3.502	.478	4	Accepted
6	Challenging partner's ideas has helped to achieve right decisions	1.247	.870	4	Accepted
7	Understanding alliance objectives has made the staff working together as a team	5.961	.202	4	Accepted
8	The healthy discussion (constructive conflict) has helped build the relationships between partners	20.082	.000	4	Rejected
9	Working as a teamwork has improved the quality of project more than working individually	4.814	.307	4	Accepted
10	Good leadership is important to create the alliance vision	3.577	.466	4	Accepted
11	Aligned objectives between partners has led to project success	6.669	.154	4	Accepted
12	Aligned vision between partners has led to project success	6.649	.156	4	Accepted
13	Selecting the right partners was important to alliance success	3.245	.518	4	Accepted
14	Training on alliance operation has enhanced the self-awareness for partners	12.219	.016	4	Rejected
15	Non-coercive power (democratic power) was critical to achieve an effective decision-making process	12.676	.013	4	Rejected
16	interaction between partners enhances the alliance success	6.145	.189	4	Accepted
17	accommodating partners inside the alliance helps of the success project	7.945	.094	4	Accepted

These tests were run to obtain more depth results regarding the rejected hypotheses and to identify the significant differences between the group of the participants' experiences/group of dependent variables (BSFs). Thus, as shown in Figure 5-23 to determine the differences in these three variables, Dunn's Pairwise Comparison is run, with factor 8 (*Constructive Conflict*) and finds that there is a considerable significant difference,  $P= .006$ , between the group of experience 2 (6 – 10 years) and group 5 (21 and above). In addition, there is a larger differentiated,  $P= .007$ , among the group experience 1 (1 – 5 years) and group 5 (21 and above). Regarding to factor 14 (*Training*), the results of Dunn's Pairwise Comparisons test shows that there is a slight variance  $P= .044$ , between the group of experience 4 (16 – 20 years) and group 1 (2 - 5 years). Furthermore, another massive difference  $P= .008$ , occurs in the same factor between group 4 (16 – 20 years) and group 5 (21 and above). In terms of the results of pairwise



comparisons test relating to factor 15 (*Non-Coercive Power*), there is a big difference  $P= .011$  between group 3 (11 – 15 years) and group 5 (21 and above). Moreover, another small difference exists in factor 15  $P= .043$  between group 3 (11 – 15 years) and group 4 (16 – 20 years).



**Figure 5-23 Independent Sample Illustrating the Kruskal-Wallis Test Box-plot of Three Variables**

Therefore, the null hypotheses of the following factors *constrictive conflict*, *training* and *non-coercive power* are rejected, because there are differences in participants' opinions regarding the statements concerning these factors based on their experience in this field.

To sum up, as far as constructive conflict is concerned, it is noted that there are statistically significant differences between participants who are located in the small group of experiences with the largest experience group, which indicates that they believe enhancing the strength of partners relationships cannot be achieved unless existence persistent positive argument regarding selecting the best decision which able to deliver the performance of SRAs successfully. Constructive conflict is healthy behaviour, and able to plant roots of trust through motivating the ability of participants to sharing their opinions to draw brighten destiny for railway alliances. While the indications refer to there are clear differences between the medium and largest group of participants relating to the role of non-coercive power (democratic power). Power of this factor explicit by believing the railway's participants that by offering freedom for others from different managerial levels to contribute their experience, this enhances the trust between lowest participants levels with the leadership team, increase their desires to be committed for the alliance charter. Thereby, adopting this attitude helps in delivering railway alliance project smoothly and make all participants behaviours unified to achieve common alliance objective. However, the reaction of participants which are from different experience backgrounds explains the importance of training. Role of training in strengthen participant capabilities and its reflection on their behaviours is fundamental, where helps to facilitate understanding of the alliance's mechanism and sharing experiences and skills between participants.

#### 5.4.2.4 Ranking of Behavioural Success Factors of Strategic Railway Alliance

Determining the importance of these BSFs for SRAs is essential. Table 5-32 shows a gradual ranking for the strategic alliance behavioural success factors based on the *Mean*, and according to participants responses based on the findings of the quantitative section.

**Table 5-32 Levels of the Behavioural Success Factors of Strategic Railway Alliance**

No	Behavioural Success Factors Statements	Mean
1	A good leadership is important to create the alliance vision	4.82
2	Selecting the right partners was important to alliance success	4.73
3	aligned objectives between partners has led to project success	4.67
4	Working as a teamwork has helped to speed-up the delivery of project	4.53
5	Joint commitment has helped to build the relationship	4.48
6	aligned vision between partners has led to project success	4.44
7	Understanding alliance objectives has made the staff working together as a team	4.42
8	Challenging partner's ideas has helped to achieve right decisions	4.40
	Knowledge sharing has increased the value created by the alliance	
9	Communication has helped to exchange learning the skills between partners	4.33
10	Interaction between partners enhances the alliance success	4.29
11	The healthy discussion (constructive conflict) has helped build the relationships between partners	4.26
	Interaction between partners enhances the alliance success	
12	Non-coercive power (democratic power) was critical to achieve an effective decision-making process	4.25
13	Mutual dependence has helped build trust	4.12
14	Training on alliance operation has enhanced the self-awareness for partners	4.11
15	Trust other partners have enhanced commitment	4.10

#### 5.4.2.5 Frequency Distribution of Responses of Behavioural Negative Factors

According to questions 31 to 40, participants were given statements which represented the BNFs that can hinder a successful of SAs performance. These are based on a five-point Likert scale to determine whether they agree or not with these statements. The frequency distribution for the responses is demonstrated in following sections below.

##### 5.4.2.5.1 Destructive Conflict

The occurrence of conflict in an organisational system can threaten future relationships and any success. Strengthening relationships inside a SRA usually relates to the ability of partners to grow trust amongst all participants. Generally, participants are asked a statement regarding the role of destructive conflict behaviour in demolishing the trust between alliance partners. Most participants answered the question strongly agree (53.4%), and (39.7%) agree. All the detailed findings are illustrated in Table 5-33.

**Table 5-33 Detailed Findings for Destructive Conflict Factor**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q33	Frequency	39	29	5	73
	Percentage	53.4	39.7	6.8	100

According to the results shown in Table 5-33, in SRAs, participants are fully aware of destructive conflict behaviour and the risks that occur if its initial signals of conflict arise. The negative side of conflict and its impact on the alliance future at first stage disputes can emerge from which trust and commitment will decrease and sharing will reduce between partners. This may lead to a final stage, which will see the termination of the SA and a failure of the project.

#### 5.4.2.5.2 Opportunistic Behaviour

Sometimes relationships, and even when organisations, break down early because the main partners feel that other parties enter the relationship to only achieve their self-interests. Similarly, SRA relationships can be affected by this behaviour when partners are engaged to achieve this desire. Participants were asked a question based on their experience regarding impact of opportunistic behaviour and whether it appeared at the level of commitment within the SRAs. The majority of responses selected strongly agree (58.9%) whilst 23.3% agreed with statement. Table 5-34 shows the findings regarding opportunistic behaviour.

**Table 5-34 Detailed Findings for Opportunistic Behaviour Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q34	Frequency	43	17	11	2	73
	Percentage	58.9	23.3	15.1	2.7	100

According to these results, SRA participants realise the risk of this factor on future relationships including on the reputation of these organisations, when the alliance may be terminated. Thus, relationships should be based on sharing benefits equally, and it is not acceptable to hide anything that can affect alliance operations, whether negative or positive. However, those who selected neutral (15.1%) and disagree (2.7%) may not believe that opportunistic behaviour exists. This may be because they believe that strategic alliance decisions are usually issued among different organisations based on different specialities, or they are often working within a trusted environment, therefore, such behaviour will not be present in these relationships.

#### 5.4.2.5.3 Coercive Power (Dictatorial Power)

One of the biggest reasons for the destruction of relationships within a SRA is the use of coercive power when giving administrative orders and conducting decision-making discussions. A statement was given to participants based on their experience, whether using like this type of power, will lead to the conflict between partners. Thus, 57.5% of the participants responded strongly agreed, and 32.9% agreed with the statement. The findings are demonstrated in Table 5-35.

**Table 5-35 Detailed Findings for Coercive Power (Dictatorial Power) Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q35	Frequency	42	24	5	2	73
	Percentage	57.5	32.9	6.8	2.7	100

The results shown in this table suggest that participants realise that success usually starts from inside the organisational system, and external successful emerges when organisations carefully adopt the right strategies. Therefore, alliances have become conscious of the right type of power that should be used to achieve targeted and mutually agreed success.

#### 5.4.2.5.4 Distrust

Many failure actions can occur due to poor planning from top management, where initial signs of distrust usually emerge, especially from other partners and results from the lack of management guidance. For this factor, participants were asked a clear question based on their experience, whether poor guidance in terms of solving alliance problems will lead to distrust amongst partners. Most of the responses agreed with the statement (60.3%), whilst 31.5% strongly agreed. Table 5-36 shows the detailed findings for the distrust factor.

**Table 5-36 Detailed Findings for Distrust Factor**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q36	Frequency	23	44	2	4	73
	Percentage	31.5	60.3	2.7	5.5	100

The results above suggest that participants recognise that poor of trust often starts with weak management that does not effectively gather partners to discuss the barriers facing the alliance. With this issue, discontent can emerge from inside the alliance; moreover, the level of commitment can be affected

because a lack of planning can mean a loss of trust; therefore, giving the right solutions for problems enable clarity to avoid a decrease in trust and commitment.

#### 5.4.2.5.5 Lack of Commitment

One of the reasons for the failure of SRAs is the lack of partners' commitment. This issue can manifest when participants feel excessive controlling over them, which means that aspects of trust are lost between partners. If this occurs, the motivations of partners will change from achieving the main goal of the alliance to fulfilling self-interests. Participants were given a statement based on their experience, on whether a decreased level of commitment will affect the motivation underpinning alliance teamwork. Generally, most of the participants selected strongly agree by (47.9%), whilst 46.6% agreed with the statement. The findings are illustrated in Table 5-37.

**Table 5-37 Detailed Findings for Lack of Commitment Factor**

Item No	Responses			Total	
		Strongly agree	Agree		Neutral
Q37	Frequency	35	34	4	73
	Percentage	47.9	46.6	5.5	100

According to these results, SRAs are aware of the importance of commitment for an alliance's success. According to human behaviour, this means not listening to the views of alliance staff; this can lead to the dispersion of the ambitions of partners, where trust will recede. These negative results can lead to a decrease in the motivation to work, and commitment would be lost; thus, the alliance's success will be destroyed.

#### 5.4.2.5.6 Lack of Mutual Communication

Communication is one of the elements that can accelerate the success of a SRA. In not sharing information between partners, this will hinder the success of a project, and eventually negative behaviours will emerge. Participants were asked a question based on their experience, whether a lack of mutual communication and information sharing, will mean damage to the cohesion between partners. The majority of participants selected strongly agree (72.6%), and (24.7%) agree with the statement. Table 5-38 shows the findings for this factor.

**Table 5-38 Detailed Findings for Lack of Mutual Communication Factor**

Item No	Responses			Total	
		Strongly agree	Agree		Neutral
Q38	Frequency	53	18	2	73
	Percentage	72.6	24.7	2.7	100

The results indicate that participants understand the importance of mutual communication when building the relationships with other organisations, especially when they are engaging in an alliance. Importantly, the strength of communication and exchange of information is determined by the amount of trust between top management and the next levels of the alliance. Thus, facing challenges will be easier, if an alliance works together as a cohesive team.

#### 5.4.2.5.7 Lack of Knowledge Sharing

A lack of knowledge sharing between partners within the SA affects the continuation of this relationship, which threatens the survival of the alliance survive. Participants were given a question on the dangers of losing knowledge sharing, and on the quality of decisions that can emerge from the management level. More than half of participants chose strongly agree (58.9%), whilst 38.4% agreed with the question. The findings are illustrated in the Table 5-39.

**Table 5-39 Detailed Findings for Lack of Knowledge Sharing Factor**

Item No	Responses			Total	
		Strongly agree	Agree		Disagree
Q39	Frequency	43	28	2	73
	Percentage	58.9	38.4	2.7	100

It is clear that participants are aware of the importance of knowledge sharing, particularly when decision-making meetings are held. Sharing experiences, which contain tacit and explicit knowledge, have a fundamental role in achieving the targeted goal of a SA. Therefore, the quality of decisions depends on the quality of the knowledge shared within a meeting (decision-making meetings).

#### 5.4.2.5.8 Lack of Mutual Dependency

Increasing the level of trust essentially relies on the amount of mutual dependency between partners within the strategic alliance. Without dependence between the participants within the SRAs, the main principle of a creating a SRA is not achieved. One question was given to the participants based on their experience, namely, if the mutual dependency between alliance groups is lost, the level of the trust will be affected.

The responses gained, 39.7% strongly agree, and 45.2% agree with the statement. All the findings are demonstrated in Table 5-40.

**Table 5-40 Detailed Findings for Lack of the Mutual Dependency**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q40	Frequency	29	33	5	6	73
	Percentage	39.7	45.2	6.8	8.2	100

According to the results in Table 5-40, the railway industry usually needs to depend on other sources to accomplish projects. Similarly, creating a SRA aims to achieve the same objective. Without mutual dependence, all positive behaviours will decrease, such as trust and commitment. At this time, losing these behaviours will negatively reflect on the progress of the alliance and any success. However, the participants who selected disagree (8.2%) do not believe that success relates to the amount of mutual dependency between partners and presence of the trust. However, trust could be based on partners who believe in the target objective of establishing the strategic alliance.

#### 5.4.2.5.9 Misunderstanding the Alliance Objectives

The impact of this negative factor can occur if participants do not understand the SA objectives clearly. It is evident that a SA will lose the benefit of positive partner behaviours within an alliance. In general, the alliance members were asked to present their perceptions based on their experience in whether a lack of understanding of the alliance objectives will affect its success. The majority of respondents strongly agreed (61.6%) with the statement, whilst 34.2% agreed. Table 5-41 illustrates the descriptive results.

**Table 5-41 Detailed Findings for Misunderstanding the Alliance Objectives Factor**

Item No	Responses				Total
		Strongly Agree	Agree	Neutral	
Q41	Frequency	45	25	3	73
	Percentage	61.6	34.2	4.1	100

According to these percentages, the realisation amongst alliance members as to the dangers of misunderstanding alliance objectives is clear. Keeping in touch with others and following the guidelines is important to ensure that participants are consistently updated with regard to developments that might impact on the achievement.

#### 5.4.2.5.10 Unaligned Partners' Objectives

One of the essential reasons for the frustrated efforts of a strong SRA, is the incompatibility amongst the objectives of alliance partners. For the questionnaire, alliance members were given a clear statement that, if the goals of the alliance members were unaligned, this would affect the success of the SRAs performance. The answers showed that 46.6% of respondents strongly agreed, whilst 47.9% agreed. All details are provided in Table 5-42.

**Table 5-42 Detailed Findings for Unaligned Objectives Factor**

Item No	Responses					Total
		Strongly Agree	Agree	Neutral	Disagree	
Q42	Frequency	34	35	2	2	73
	Percentage	46.6	47.9	2.7	2.7	100

As a result, the awareness amongst members of this UK railway alliances is high regard the impact of this issue on the alliance success. Determining the identity of upcoming partners and their strategic orientation, as well as the general aspect of their business model prevents some significant problems, which can frustrate the alliance.

#### 5.4.2.6 Behavioural Negative Factors of The Strategic Railway Alliance (Chi-Square Analysis Test)

##### 5.4.2.6.1 Destructive Conflict

To achieve more in-depth inferential findings, two hypotheses were stated by the researcher to determine whether alliance members have an equal probability of agreeing to or rejecting the statement concerning the destructive conflict factor: “*destructive conflict between partners will affect the level of trust*”. These two hypotheses are as follows:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement, “destructive conflict between partners will affect the level of trust”.*

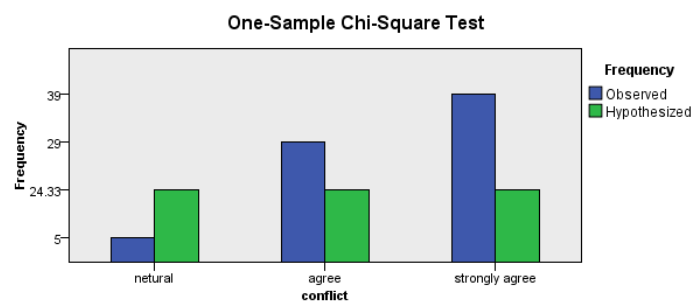
*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “destructive conflict between partners will affect the level of trust”.*



Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of conflict occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results are demonstrated in the Chi-square cell test above that shows the null hypothesis was rejected, while the alternative hypothesis was accepted at the significance level (.05%). This indicated that the variance in alliance members' opinions is highlighted regarding the agreement with the statement concerning destructive conflict: *“destructive conflict between partners will affect the level of trust”*. This difference can be shown in Figure 5-24.



**Figure 5-24** Frequencies of Observed and Expected Responses for Destructive Conflict Factor

To evaluate the variance in alliance member opinions and to obtain more robust findings, the researcher designed another two hypotheses in order to conduct the Chi-square test again. Adopting the following proportions is based on frequencies (see table 5-33) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). Both two hypotheses are provided below.

*H<sub>0</sub>: 50% of members of the alliance strongly agree with the statement, and 10% of the alliance members have a neutral opinion of the statement.*

*H<sub>1</sub>: 50% of members of the alliance do not strongly agreement with the statement, and 10% of alliance members do not have a neutral opinion of the statement.*

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of conflict occur with the specified probabilities.	One-Sample Chi-Square Test	.345	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

From the findings in the analysis cell above, it shows that the null hypotheses were accepted at the significance level (.05%), which denoted that 50% of the alliance members strongly agree with the statement regarding destructive conflict: “*destructive conflict between partners will affect the level of trust*”. Meanwhile, 10% have a neutral opinion of the statement; thus, the alternative hypothesis was rejected. Therefore, the findings of the analysis stage are considered not statistically significant at the significance level (Sig =.34).

In general, 50% of the alliance members agreed that the level of trust will be affected by any sign of conflict can be appear amongst members. In comparison, 10% may believe that there are many influences on the level of trust, which alongside conflict will pose barrier to the building of trust and the achievement of success. Finally, the options ‘strongly disagree’ and ‘disagree’ were not selected by the alliance members in the questionnaire.

#### 5.4.2.6.2 Opportunistic Behaviour

In order to determine whether alliance members have an equal probability or not of agreeing or rejecting the statement regarding opportunistic behaviour factor, two hypotheses were established in relation to the statement: “*the presence of opportunistic behaviour within alliances will lead to reduced levels of commitment*”. These hypotheses were established to examine this proposition, and both of these hypotheses are provided below:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “the presence of opportunistic behaviour within alliances will lead to reduced levels of commitment”.*

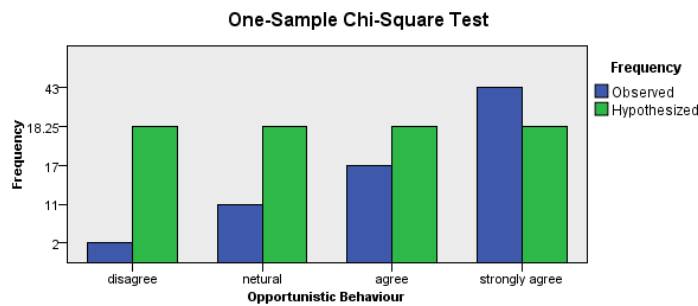
*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “the presence of opportunistic behaviour within alliances will lead to reduced levels of commitment”.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Opportunistic Behaviour occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

It is clear from the results, which are shown in the analysis cell that the null hypothesis was rejected, while the alternative hypothesis was accepted at the significance level (.05%). These results indicate that there is differentiation amongst alliance member’s opinions regarding the statement of opportunistic

behaviour factor: “the presence of opportunistic behaviour within alliances will lead to reduced levels of commitment”. This variability is shown in Figure 5-25.



**Figure 5-25 Frequencies of Observed and Expected Responses Opportunistic Behaviour Factor**

Thus, selecting the following proportions is based on frequencies (see table 5-34) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are as follows:

*H<sub>0</sub>: 60% of members of the alliance strongly agree with the statement, and 5% of alliance members disagree with the statement.*

*H<sub>1</sub>: 60% of members of the alliance do not strongly agree with the statement, and 5% of alliance members do not disagree with the statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Opportunistic Behaviour occur with the specified probabilities.	One-Sample Chi-Square Test	.414	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The findings in the Chi-square analysis cell above illustrate that the null hypothesis was accepted at the significance level (.05%), and the alternative hypothesis was rejected. Importantly, 60% of alliance members strongly agree with the statement regarding opportunistic behaviour “the presence of opportunistic behaviour within alliances will lead to reduced levels of commitment” meanwhile, 5% of those members disagree with the statement. Therefore, the findings of this phase are not statistically significant at the significance level (Sig =.41).

Generally, 60% of the alliance members believed that presence of opportunistic behaviour within the SA and attempts to gain self-interest by entering the alliance will affect the level of commitment and trust. Meanwhile, 5% of those members potentially thought that the level of commitment would not be affected

by this opportunistic behaviour and issuing an initial warning to those who seek to behave in this way could solve this issue. However, nobody selected ‘strongly disagree’ in the questionnaire.

### 5.4.2.6.3 Coercive Power (Dictatorial Power)

In this factor, the researcher seeks to determine whether the alliance members have an equal probability or not in agreeing or rejecting the statement concerning coercive power factor “*using coercive power (dictatorial power) will lead to conflict*”. Thus, two hypotheses are generated to examine this proposition, which are provided below:

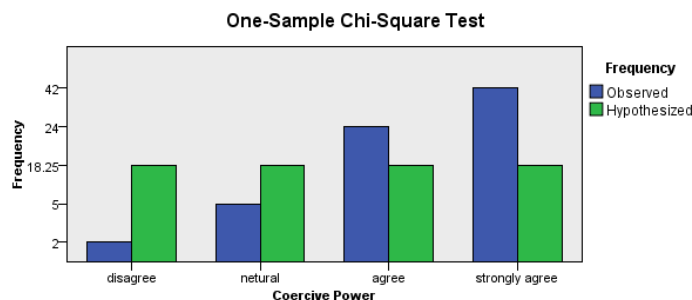
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “using coercive power (dictatorial power) will lead to conflict”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “using coercive power (dictatorial power) will lead to conflict”.*

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Coercive Power occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results are illustrated in the Chi-square analysis test shown that the null hypothesis was rejected, which signifies that the alternative hypothesis was accepted at the significance level (.05%). In addition, the variance in the alliance members’ opinions is clear regarding the statement of coercive power factor “*using coercive power (dictatorial power) will lead to conflict*”. Figure 5-26 illustrates this variance.



**Figure 5-26 Frequencies of Observed and Expected Responses Coercive Power Factor**

Achieving stronger findings can be accomplished by conducting another Chi-square test; thus, the researcher designed another two hypotheses to evaluate the variability in the alliance members’ opinions. Adopting the following proportions is based on frequencies (see table 5-35) of the sample. The importance

of this stage is to examine the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are included as follows:

*H<sub>0</sub>: 55% of members of the alliance strongly agreed with the statement, and 5% of the alliance members disagreed with the statement.*

*H<sub>1</sub>: 55% of members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not disagree with the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Coercive Power occur with the specified probabilities.	One-Sample Chi-Square Test	.363	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The findings of this analysis cell explain that the null hypothesis was accepted at the significance level (.05%), whereas the alternative hypothesis was rejected. It is important that 55% of the alliance members strongly agreed regarding the statement of coercive power: “*using coercive power (dictatorial power) will lead to conflict*”. However, just 5% disagreed; as a result, these findings are not considered statistically significant at the significance level (Sig =.36%).

To summarise, 55% of the alliance members were potentially convinced that giving orders and using traditional ways of managing an alliance will create conflict amongst partners. Moreover, 5% of members may believe that, to gain excellent results, managing a SA requires the use of dictatorial instructions when conducting some of the alliance tasks. In contrast, nobody selected ‘strongly disagree’ as an option.

#### **5.4.2.6.4 Distrust**

Distrust as a negative factor that can significantly hinder strategic alliance success; therefore, the researcher investigated this factor by conducting inferential tests to determine whether the alliance members have an equal of probability of agreeing or rejecting the statement regarding distrust “*a lack of guidance amongst partners to solve problems in the right way will lead to distrust*”. For this stage two hypothesis were designed to determine this proposition:

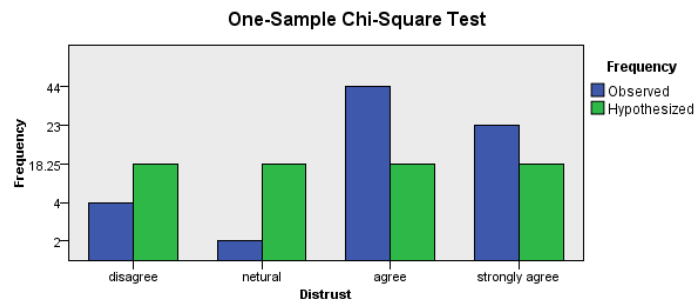
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “a lack of guidance for partners to solve problems in the right way will lead to distrust”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “a lack of guidance for partners to solve problems in the right way will lead to distrust”.*

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Distrust occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results are provided in the Chi-square analysis cell, which illustrates that the null hypothesis was rejected, and the alternative hypothesis was accepted at the significance level (.05%). It should be highlighted that the alliance members’ opinions are differentiated by the statement, and more details can be seen in Figure 5-27.



**Figure 5-27 Frequencies of Observed and Expected Responses Distrust Factor**

Further in-depth findings can be fulfilled by formulating another two hypotheses to evaluate alliance members’ opinions. Using the following proportions is based on frequencies (see table 5-36) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These formulated hypotheses can be seen as follows:

*H<sub>0</sub>: 60% of members of the alliance agree with the statement, and 5% of the alliance members have a neutral opinion of statement.*

*H<sub>1</sub>: 60% of members of the alliance do not agree with the statement, and 5% of the alliance members do not have a neutral opinion of statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Distrust occur with the specified probabilities.	One-Sample Chi-Square Test	.395	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

It is clear that the findings of the Chi-square test demonstrate that the null hypothesis was accepted at the significance level (.05%), while the alternative hypothesis was rejected. These findings explain that 60% of the alliance members agreement to the statement regarding the distrust factor “*a lack of guidance for partners to solve problems in the right way will lead to distrust*”. Furthermore, 5% have a neutral opinion towards the statement. Thus, the findings of this stage are not significant at significance level (Sig =.39).

Overall, 60% of the alliance members assert that one of the many reasons for reduced partners trust is due to a lack of proper guidance in solving problems, which challenge an alliance’s process. Moreover, 5% of those members might not have a full understanding of the reasons behind the decreased level of trust in the SA. However, nobody chose ‘strongly disagree’ in the questionnaire.

**5.4.2.6.5 Lack of the Commitment**

The researcher developed two hypotheses to understand the opinions amongst alliance members as to whether they have an equal probability of agreeing with, or rejecting, the statement concerning a lack of commitment within the strategic alliance. The statement was “*the lack of commitment will lead to reduced motivation for teamwork*”. These two hypotheses are located below.

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement: “the lack of commitment will lead to reduced motivation for teamwork”.*

*H<sub>1</sub>: All the members of the alliance do not have an equal probability of accepting or rejecting the statement: “the lack the commitment will lead to reduced motivation for teamwork”.*

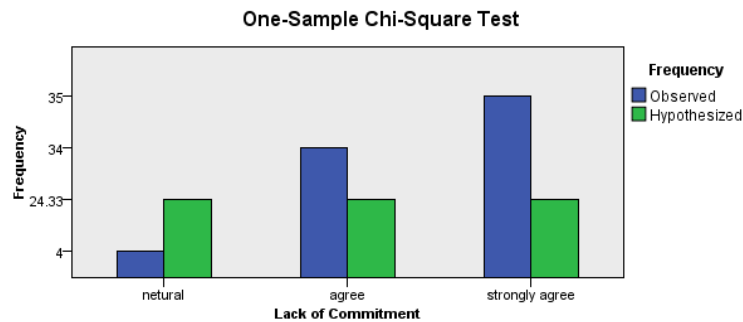
**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of Commitment occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The results are included in the Chi-square analysis cell which show that the null hypothesis was rejected, and the alternative hypothesis was accepted at the significance level (.05%). The variance in

alliance members' opinions is evident regarding the statement: *“the lack of commitment will lead to reduced motivation for teamwork”*. This variance can be seen in Figure 5-28.



**Figure 5-28** Frequencies of Observed and Expected Responses Lack of Commitment Factor

At this stage, the researcher sought to achieve more robust findings, and designed two further hypotheses to evaluate the opinions of alliance members related to lack of commitment factor. Adopting the following proportions is based on frequencies (see table 5-37) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are:

*H<sub>0</sub>: 45% of members of the alliance agree with the statement, and 10% of the alliance members have a neutral opinion towards the statement.*

*H<sub>1</sub>: 45% of members of the alliance do not agree with the statement, and 10% of the alliance members do not have a neutral opinion towards the statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of Commitment occur with the specified probabilities.	One-Sample Chi-Square Test	.221	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The null hypothesis via the Chi-square test was accepted at the significance level (.05%), whilst the alternative hypothesis was rejected. These findings demonstrate that 45% of alliance members agree with the statement regarding a lack of commitment *“the lack of commitment will lead to reduced motivation for teamwork”*. Conversely, 10% of members have a neutral opinion towards the statement. Therefore, the findings cannot be counted statistically significant at the significance level (Sig =.22).

Therefore, 45% of the alliance members potentially believe that the motivation for undertaking an alliance task can be affected by a decreased or loss of commitment. Meanwhile, 10% may not have any



specific ideas regarding the negative impact of a decreased level of commitment. However, nobody selected ‘strongly disagree’ and ‘disagree’ in the questionnaire.

#### 5.4.2.6.6 Lack of Mutual Communication

The researcher generated two hypotheses to determine if alliance members have an equal probability of agreeing to or rejecting the statement regarding poor communication: “*lack of communication will lead to a non-cohesive team*”. These two hypotheses are provided as follows:

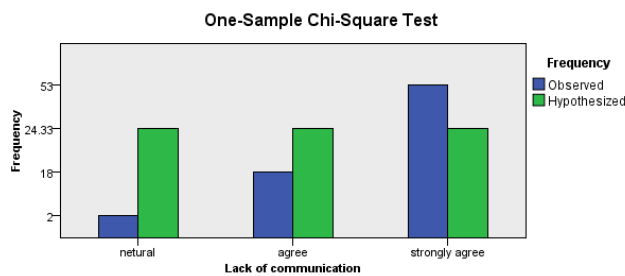
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “lack of communication will lead to a non-cohesive team”.*

*H<sub>1</sub>: All members of the alliance do have not an equal probability of accepting or rejecting the statement “lack of communication will lead to a non-cohesive team”.*

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of communication occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

From the results it can be seen that the null hypothesis was rejected, while the alternative hypothesis was accepted at the significance level (.05%). Importantly, the variability in the opinions of the alliance members is apparent regarding the statement “*lack of communication will lead to a non-cohesive team*” this can be seen in Figure 5-29.



**Figure 5-29** Frequencies of Observed and Expected Responses Lack of Mutual Communication Factor

The researcher also sought more in-depth findings, and that could be achieved by establishing two hypotheses to evaluate the opinions of the alliance members. Choosing the following proportions is based on frequencies (see table 5-38) of the sample. This stage is important to test the observed proportions in

each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are. These two hypotheses are as follows:

*H<sub>0</sub>: 70% of members of the alliance strongly agree with the statement, and 5% of the alliance members have a neutral opinion towards the statement.*

*H<sub>1</sub>: 70% of members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not have a neutral opinion towards the statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of communication occur with the specified probabilities.	One-Sample Chi-Square Test	.368	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The findings, which are illustrated in Chi-square analysis cell, the null hypothesis was accepted at the significance level (.05%), and the alternative hypothesis was rejected, which indicates that 70% of the alliance members agree with the statement: “*lack of communication will lead to a non-cohesive team*”. Whereas, 5% of those members have a neutral opinion towards the statement. As a result, this is considered not significant at the significance level (Sig =.36).

In general, 70% of the alliance members are agree that lack of quality communication and a lack of information sharing amongst partners inside the strategic alliance will negatively affect the strength of the alliance teamwork. In contrast, 5% of those members may not be sure of the implications of poor transferral and exchange of information within the SA. However, the options ‘strongly disagree’ and ‘disagree’ has not been picked for this factor.

#### 5.4.2.6.7 Lack of Knowledge Sharing

In this factor, two hypotheses were stated by the researcher to determine whether the alliance members have an equal probability of agreeing with or rejecting the lack of knowledge sharing factor: “*the lack of sharing knowledge will reduce the quality of decision-making*”. These hypotheses are included as follows:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “the lack of sharing knowledge will reduce the quality of decision-making”.*

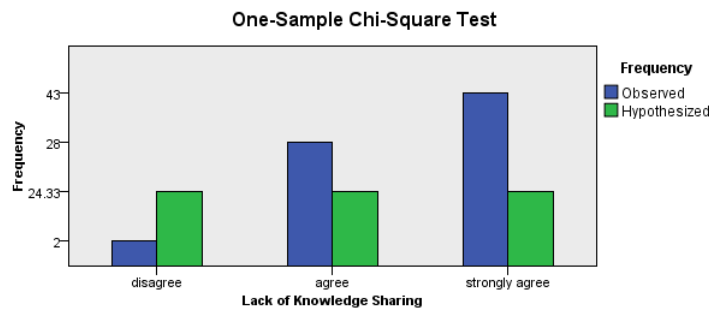
*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “the lack of sharing knowledge will reduce the quality of decision-making”.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of Knowledge Sharing occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Through the analysis cell above, the results show that the null hypothesis was rejected, whilst the alternative hypothesis was accepted at the significance level (.05%). This denotes that there is variability amongst alliance members’ opinions regarding the statement: “*the lack of sharing knowledge will reduce the quality of decision-making*” as shown in Figure 5-30.



**Figure 5-30 Frequencies of Observed and Expected Responses Lack of Knowledge Sharing Factor**

Nevertheless, more solid findings are required at this stage; thus, to evaluate the opinions of alliance members. Adopting the following proportions is based on frequencies (see table 5-39) of the sample. The importance of this stage is to examine the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). The two hypotheses are:

*H<sub>0</sub>: 60% of members of the alliance strongly agree with the statement, and 5% of alliance members disagree with the statement.*

*H<sub>1</sub>: 60% of members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not disagree with the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of Knowledge Sharing occur with the specified probabilities.	One-Sample Chi-Square Test	.414	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Here, the null hypothesis was accepted at the significance level (.05%), which means the alternative hypothesis was rejected. The main findings obtained from this analysis indicate that 60% of the alliance

members strongly agree with the statement regarding the lack of knowledge sharing: “*the lack of knowledge sharing will reduce the quality of decision-making*”. Moreover, 5% disagree with the statement. Therefore, these findings are not statistically significant at the significance level (Sig =.41).

Therefore, 60% of the alliance members potentially agreed that, not reaching the right decision usually occurs because the level of knowledge sharing is limited. Conversely, 5% might think that the decision-making process can be affected by internal and external factors such as distrust and lack of commitment. However, nobody selected ‘neutral’ and ‘strongly disagree’.

#### 5.4.2.6.8 Lack of Mutual Dependency

The researcher examined the assumption as to whether alliance members have an equal probability of agreeing with or rejecting the statement: “*a lack of dependency between partners will lead to a loss of trust*”. Two hypotheses have been designed to explore the findings further. These hypotheses are:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “a lack of dependency between partners will lead to a loss of trust”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “a lack of dependency between partners will lead to a loss of trust”.*

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of mutual Dependency occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The results of the Chi-square analysis demonstrate that the null hypothesis was rejected, and the alternative was accepted at the significance level (.05%). The opinions of the alliance members are clearly differentiated regarding the statement: “*a lack of dependency between partners will lead to a loss of trust*”. A further illustration of these findings can be found in Figure 5-31.

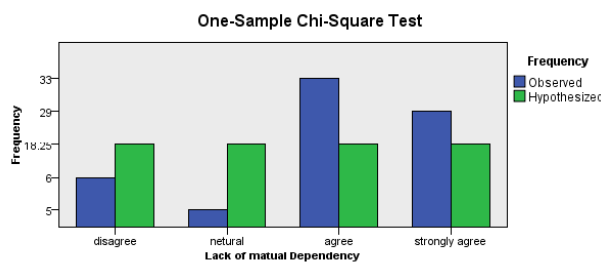


Figure 5-31 Frequencies of Observed and Expected Responses Lack of Mutual Dependency Factor

Importantly, more analysis is required at this stage; therefore, the researcher designed two further hypotheses to evaluate the opinions of alliance members. Selecting the following proportions is based on frequencies (see table 5-40) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are as follows:

*H<sub>0</sub>: 45% of members of the alliance agree with the statement, and 10% of the alliance members have a neutral opinion of the statement.*

*H<sub>1</sub>: 45% of members of the alliance do not strongly agree with the statement, and 10% of the alliance members do not have a neutral opinion of the statement.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Lack of mutual Dependency occur with the specified probabilities.	One-Sample Chi-Square Test	.422	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The findings show that the null hypothesis was accepted at the significance level (.05%), whereas the alternative was rejected. Thus, 45% of the alliance members agree with the statement “*a lack of dependency between partners will lead to a loss of trust*”. In contrast, 10% of the members have a neutral opinion towards the statement. Therefore, the findings of the analysis stage are not considered statistically significant (Sig =.42).

In total, 45% of alliance members agree that a weak dependency amongst partners within the alliance hinder the trust building and break down the relationships. In contrast, 10% may not fully understand the essential role of dependency in strengthening the relationships and accelerating the alliance’s success. Nevertheless, nobody selected the ‘strongly disagree’ option.

#### **5.4.2.6.9 Misunderstanding of Alliance Objectives**

To determine whether alliance members have an equal probability of agreeing or rejecting the statement: “*misunderstanding the alliance stages affect the progress towards success*”. The researcher adopted two hypotheses to further investigate this area:

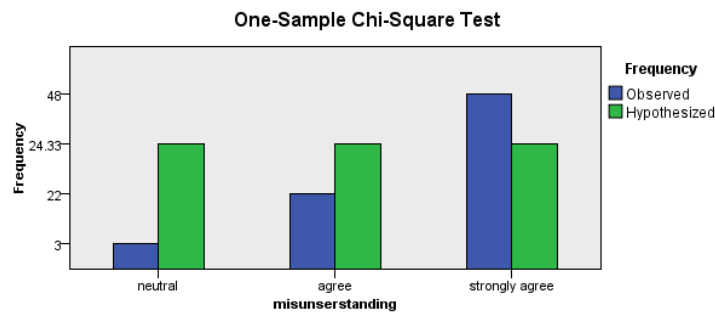
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “misunderstanding the alliance stages affect the progress towards success”.*

$H_1$ : All members of the alliance do not have an equal probability of accepting or rejecting the statement “misunderstanding the alliance stages affect the progress towards success”.

	Null Hypothesis	Test	Sig.	Decision
1	The categories of misunderstanding occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

This analysis shows that the null hypothesis was rejected at the significance level (.05%), which indicates that the opinions of alliance members demonstrate diversity towards the statement: “misunderstanding the alliance stages affects progress towards success”. Meanwhile, the alternative hypothesis was accepted. More detail can be seen in Figure 5-32 below.



**Figure 5-32 Frequencies of Observed and Expected Responses Misunderstanding of Alliance Objectives Factor**

More robust findings can be achieved by running the Chi-Square test. The researcher designed two hypotheses to evaluate the frequencies of alliance members’ opinions. Adopting the following proportions is based on frequencies (see table 5-41) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). The two hypotheses are provided below:

$H_0$ : 60% of members of the alliance strongly agree with the statement, and 5% of alliance members have a neutral opinion towards the statement.

$H_1$ : 60% of members of the alliance do not strongly agree with the statement, and 5% of alliance members do not have a neutral opinion towards the statement.

	Null Hypothesis	Test	Sig.	Decision
1	The categories of misunderstanding occur with the specified probabilities.	One-Sample Chi-Square Test	.708	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Here, the findings of this analysis test show that the null hypothesis was accepted at (.05%), where 60% of alliance members strongly agreed with the statement: “*misunderstanding the alliance stages affect the progress towards success*”. In contrast, 5% of the opinions were neutral. Statistically, the findings at this stage are not considered significant (Sig =.70).

Therefore, 60% of alliance members agree that misunderstanding the alliance process directly impacts the progress towards success, for example due to the increased costs of running training sessions; this could lead to failing the alliance process. However, 5% of members may believe that misunderstanding the alliance objectives and process can be addressed though long-term of relationships and by working together. Finally, no members selected ‘disagree’ or ‘strongly disagree’.

#### 5.4.2.6.10 Unaligned Partners’ Objectives

In order to confirm the importance of this as a behavioural negative factor, the researcher established two hypotheses to determine whether the opinions of alliance members have an equal probability of agreeing with or rejecting the statement “*unaligned partner objectives will affect an alliance’s success*”. These two hypotheses are included below.

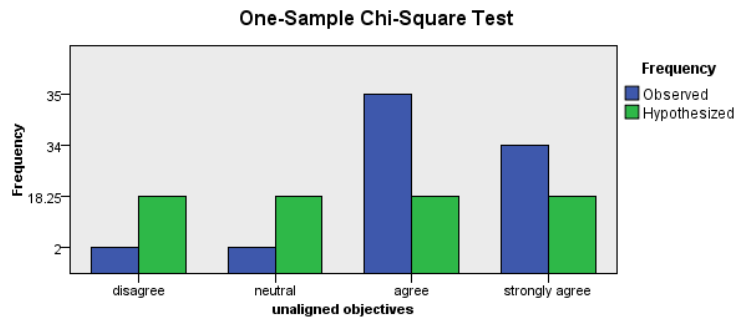
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “unaligned partners objectives will affect the alliance’s success”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “unaligned partners objectives will affect the alliance’s success”.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of unaligned objectives occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to these results, the null hypothesis was rejected at the significance level (.05%), which denotes that there are differences in alliance members’ opinions regarding the statement “*unaligned partner objectives will affect an alliance’s success*”. On the other hand, the alternative hypothesis was accepted. All the details are shown in Figure 5-33.



**Figure 5-33 Frequencies of Observed and Expected Responses unaligned Partners’ Objectives Factor**

To obtain stronger findings, a Chi-Square test was run for the second time. By designing another two hypotheses, the researcher evaluated the opinions of alliance members. Using the following proportions is based on frequencies (see table 5-42) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). The hypotheses are as follows:

*H<sub>0</sub>: 45% of members of the alliance agree with the statement, and 5% of the alliance members disagree with the statement.*

*H<sub>1</sub>: 45% of members of the alliance do not agree with the statement, and 5% of the alliance members disagree with the statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of unaligned objectives occur with the specified probabilities.	One-Sample Chi-Square Test	.352	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

From the analysis, these findings appear to prove that a null hypothesis was accepted at the significance level (.05%), which shows that 45% of alliance members agree regarding the statement “unaligned partner objectives will affect the alliance success”. Moreover, 5% of these opinions indicated disagreement. Importantly, the findings cannot be statistically counted as significant at the significance level (Sig =.35).

Overall, 45% of alliance members generally believe that incompatible partner objectives have a negative impact on completing a relationship and project effectively. Moreover, 5% of members might do not agree that incompatible objectives can affect the alliance journey and can impact a long-term relationship. However, nobody selected the option ‘strongly disagree’ for this question.



### 5.4.2.7 Kruskal-Wallis Test for Behavioural Negative Factors

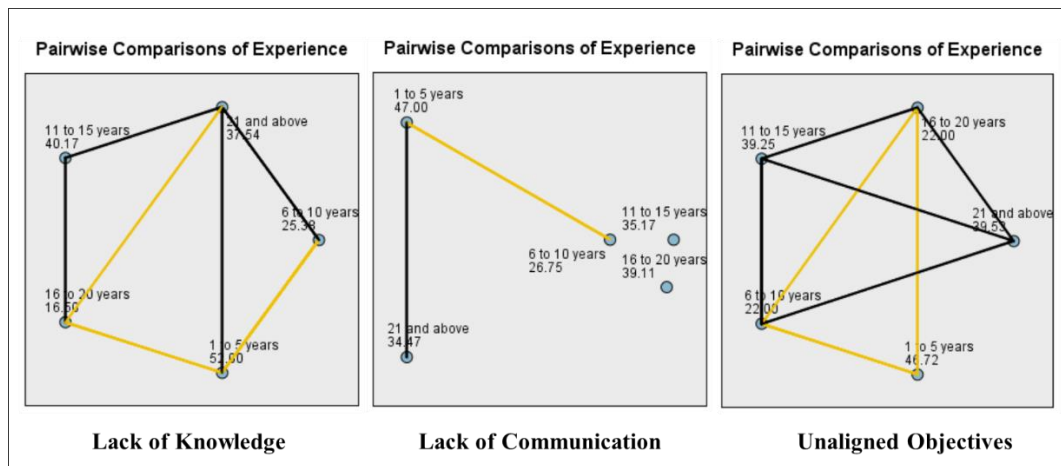
At this stage, the researcher ran the KWT to gain more robust results by showing the significant differences between groups of participants' experiences and the given variables (BNFs of SRAs performance success). Specifically, the test shows that there is significant diversity among the groups of participants' experiences in relation to factor 6 in section (3B), which stated "*lack of communication will lead to a non-cohesive team*". This denotes that the null hypothesis was rejected in this factor at  $X^2_{(6)} = 10.024, P = .040, df = 4$ . Furthermore, factor 7 in the same section, namely the "*lack of sharing knowledge will reduce the quality of decision making*", has significant differentiation between groups of participants' experiences, which shows that the null hypothesis was rejected at  $X^2_{(7)} = 25.641, P = .000, df = 4$ . Also, factor 10 which stated "*unaligned partners' objectives will affect alliance success*" showed variation between the groups of experiences related to alliance members, where the null hypothesis was rejected at  $X^2_{(10)} = 15.725, P = .003, df = 4$ . Table 5-43 demonstrates a detailed description regarding this analysis stage.

**Table 5-43 Kruskal-Wallis H Test for the Behavioural Negative Factors of Strategic Railway Alliance**

No	Hypothesis	$X^2$	$P$	$df$	Accept or Reject (Null Hypothesis)
1	Destructive conflict between partners will affect the level of trust	3.624	.459	4	Accepted
2	The presence of opportunistic behaviour within alliances will lead to reduced levels of commitment	6.025	.197	4	Accepted
3	Using coercive power (dictatorial power) will lead to conflict	3.115	.539	4	Accepted
4	Lack of guidance for partners to solve problems in the right way will lead to distrust	3.030	.553	4	Accepted
5	Lack of commitment will lead to reduced motivation for teamwork	2.796	.592	4	Accepted
6	Lack of mutual communication will lead to a non-cohesive team	10.024	.040	4	Rejected
7	Lack of knowledge sharing will reduce the quality of decision making	25.641	.000	4	Rejected
8	Lack of mutual dependency between partners will lead to a loss the trust	5.784	.216	4	Accepted
9	Misunderstanding the alliance stages affect the march of success	7.197	.126	4	Accepted
10	unaligned partners' objectives will affect alliance success	15.725	.003	4	Rejected

In order to identify the reasons beyond the rejection of these null hypotheses and to determine the significant differences among groups of participants' experiences/groups of dependent variables (BNFs), Box-plots are provided as illustrations in Figure 5-34. The conduct of the Dunn's Pairwise Comparisons highlights that, in factor 6 (*lack of mutual communication*), there is a slight divergence  $P = .040$ , between the group of experience 2 (6 – 10 years) and group 1 (1 – 5 years). Next, in terms of factor 7 (*lack of knowledge sharing*), the in-depth results shown by Dunn's Pairwise Comparisons test illustrate that there

is moderate variance  $P = .021$ , between group 4 (16 – 20 years) and group 5 (21 and above). Another great diversity  $P = .000$ , appeared between group 4 (16 – 20 years) and group 1 (1 – 5 years). Finally, the remaining large difference  $P = .008$  is illustrated between group 2 (6 – 10 years) and group 1 (1 – 5 years). Moreover, factor (10) (*unaligned partners' objectives*) illustrated that there is a big variance  $P = .025$  between the group of experience 2 (6 – 10 years) and group 1 (1 – 5) years. Also, another substantial diversity  $P = .016$  appeared between the group of experience 4 (16 – 20 years) and group 1 (1 – 5 years).



**Figure 5-34 Independent Sample Demonstrating the Kruskal-Wallis tests Box-plot for Behavioural Negative Factors**

In total, the null hypotheses of the following factors: *lack of communication, lack of knowledge sharing, and unaligned partners' objectives* are rejected because there are differences in the SRA participants' opinions regarding the statements of these factors based on their experience in this field.

In conclusion, it is noted that NHA participants from who belong to different groups of experience are highly awareness related to the impact of lack of knowledge sharing within the SRA. Decreased the level of knowledge sharing between partners increases the possibility of facing achievement challenges and reduce the level of building proper trust and commitment. In the same vein, by the reduced level of sharing knowledge indeed the quality of communication and power of connection channels would be affected. The differences of members' opinions regarding lack of communication are shown that they are recognising the importance of this factor in delivering behaviours and alliance project successfully and vice versa. Further, it is obvious from the reaction of NHA members relating to unaligned partners' objectives factor that demolish the mechanism of the alliance project and from the initial stage can be explicated by existence incompatibility in regard to unifying partners' goals underneath common goal of alliance.

### 5.4.2.8 Ranking of Behavioural Negative Factors of Strategic Railway Alliance

The importance of the BNFs of SAs can be determined by ranking these factors based on the *Mean*. Table 5-44 shows the gradually ranking of the strategic railway alliance BNFs according to the responses of participants and based on the results of quantitative section.

**Table 5-44 Levels of the Behavioural Negative Factors of Strategic Railway Alliance**

No	Behavioural Negative Factors Statements	Mean
1	Lack of mutual communication will lead to a non-cohesive team	4.70
2	Misunderstanding the alliance stages affect the march of success	4.58
3	Lack of knowledge sharing will reduce the quality of decision making	4.53
4	Destructive conflict between partners will affect the level of trust	4.47
5	Using coercive power (dictatorial power) will lead to conflict	4.45
6	Lack of commitment will lead to reduced motivation for teamwork	4.42
7	The presence of opportunistic behaviour within alliances will lead to reduced levels of commitment	4.38
	unaligned partners' objectives will affect alliance success	
8	Lack of guidance for partners to solve problems in the right way will lead to distrust	4.18
9	The lack of mutual dependency between partners will lead to a loss the trust	4.16

### 5.4.3 Indicators of Strategic Railway Alliance Performance (Theme 3)

Theme 3 of the quantitative data collection is examined in section 4 of the questionnaire. The aim of this section is to determine the main measures for a SA performance. These measures consider the determiners for measuring the efficiency of the alliance in achieving success. In general, there are five questions (Q40 – Q44) included in this section, where the participants indicate their agreement with these questions, based on their experience. All these questions are included in Section 4 of the questionnaire, as seen in APPENDIX 2.

#### 5.4.3.1 Frequency Distribution of Responses for Indicators of Strategic Railway Alliance Performance

According to questions 43 to 46, the participants are given statements, which represent the SA performance measures and are instructed by a five-point Likert scale to determine whether they agree or not with these statements. The frequency distribution for the responses are demonstrated in the following sections below.

##### 5.4.3.1.1 Achieving Profit

The essential aim of entering into SRAs with another companies is to gain profit and financial benefit. The participants mentioned this element within the interview sessions. Gaining profit is a fundamental

goal for organisations, because it improves their competitive position and reputation. According to the questionnaire, participants were asked whether entering a SRA project enhanced their profitability. The responses to this question were varied; where 38.4% selected neutral, 24.7% agreed and 21.9% strongly agreed. All findings are shown in the Table 5-45.

**Table 5-45 Detailed Findings for Achieving Profit Indicator**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q43	Frequency	16	18	28	11	73
	Percentage	21.9	24.7	38.4	15.1	100

According to the findings in Table 5-46, the views of participants depend on their work position. The neutral option was selected amongst respondents working at the operational level, and those not related to financial plan, but rather working to accomplish projects. Meanwhile, those who disagreed (15.1%), might be working primarily for public benefit or society, or they may not have access to understand how much profit is gained, because they are also at the operational level. However, those who selected agree and strongly agree understood that companies create an alliance to primarily achieve material and moral benefits whilst at the same time, they may have a better understanding of this area by working within administrative levels.

#### 5.4.3.1.2 Achieving Goals

One of the indicators of SRAs performance, is the amount of partners goals that are achieved by alliancing, and whether these goals can be fulfilled if companies work alone. A statement was given to the participants, as to whether their goals were achieved within the alliance. More than half of the responses agreed (57.5%), whilst 35.6% strongly agreed. Table 5-46 illustrates the findings regarding the performance measure.

**Table 5-46 Detailed Findings for Achieving Goals Indicator**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q44	Frequency	26	42	5	73
	Percentage	35.6	57.5	6.8	100

The findings indicate that all railway industry companies have goals and need to achieve them. Due to the presence of a competitive environment, companies seeking to enter SRAs as one entity will avoid the risks of environmental challenges and help to make partner goals achievable, as well as potentially gain profits and improve their reputation.

### 5.4.3.1.3 Reputation

An organisation's trademark is considered a determiner for the level of success of a SRA performance through which companies can obtain an excellent market position. One statement provided to participants, indicated that working within the alliance has improved the reputation of their companies. The majority of responses strongly agreed at 64.4%, and 23.3% agreed with the statement. All the findings regarding this performance indicator are shown in Table 5-47.

**Table 5-47 Detailed Findings for Reputation Indicator**

Item No	Responses				Total
		Strongly agree	Agree	Neutral	
Q45	Frequency	47	17	9	73
	Percentage	64.4	23.3	12.3	100

According to the number of participants selecting agreement, building a reputation is important. An alliance's performance success is affected by: the number of partners, size of the project, skills of the team working within the alliance, and the type of expertise. The reputation will be the final outcome and corresponds to the size of the success achieved by the alliance. Therefore, reputation is important for UK railway companies, as they can launch further new projects around the world, by using their reputation to compete with other international companies.

### 5.4.3.1.4 Behavioural Satisfaction

The fundamental indicator for a successful SRAs relationship is the level of satisfaction between partners. Participants were asked a question based on their experience in the alliance, as to whether the satisfaction between alliance parties has developed throughout the alliance relationship. Thus, 42.5% of the responses strongly agreed, and 30.1% agreed with the statement. In total, all findings for this performance measure are shown in the Table 5-48.

**Table 5-48 Detailed Findings for Behavioural Satisfaction Indicator**

Item No	Responses					Total
		Strongly agree	Agree	Neutral	Disagree	
Q46	Frequency	31	22	18	2	73
	Percentage	42.5	30.1	24.7	2.7	100

From these results, railway companies' participants are generally aware of the importance of satisfaction between partners. This behaviour cannot be reached unless the participants are mixed, and transparency is enabled among them by sharing all information and experience to achieve the common

goal and thus a successful alliance. The participants who selected neutral (24.7%) might not be engaged long-term with teams, or their knowledge may relate to the very narrow satisfaction behaviour, and thus they need experience of more activities to enable them to contribute further to the alliance team.

### 5.4.3.2 Indicators of Strategic Railway Alliance Performance (Chi-Square Test)

#### 5.4.3.2.1 Achieving Profit

Based on the experience of strategic alliance members, the researcher sought to gain stronger results by knowing whether the members have an equal probability of agreeing with or rejecting the statement: “*working within the alliance enhanced our profitability*”. Thus, the researcher stated two hypotheses to assess this matter:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “working within the alliance enhanced our profitability”.*

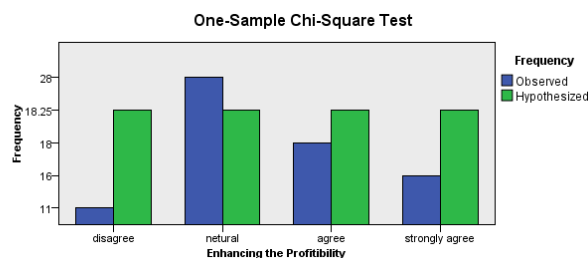
*H<sub>1</sub>: All members of the alliance do not have an equal probability to accepting or rejecting the statement “working within the alliance enhanced our profitability”.*

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Enhancing the Profitability occur with equal probabilities.	One-Sample Chi-Square Test	.039	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results are shown in the Chi-square analysis cell, which illustrate that the null hypothesis was rejected; therefore, the alternative hypothesis was accepted at the significance level (.05%). This indicates that there is variability in the opinions of alliance members regarding to the statement: “*working within the alliance enhanced our profitability*”. Figure 5-35 shows this variance in members' opinions.



**Figure 5-35** Frequencies of Observed and Expected Responses Achieving Profit Indicator

The research requires more in-depth analysis to gain solid findings. Therefore, the researcher has established another two hypotheses to evaluate alliance members' opinions. Adopting the following proportions is based on frequencies (see table 5-45) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These hypotheses are demonstrated below:

*H<sub>0</sub>: 40% of members of the alliance have a neutral opinion towards the statement, and 15% of alliance members disagreed with statement.*

*H<sub>1</sub>: 40% of members of the alliance do not have a neutral opinion towards the statement, and 15% of alliance members do not disagree with statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Enhancing the Profitability occur with the specified probabilities.	One-Sample Chi-Square Test	.896	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The main thing that can be determined from these findings is that the null hypothesis was accepted at the significance level (.05%), while the alternative hypothesis was rejected. This denotes that 40% of alliance members have a neutral opinion regarding the statement: “*working within the alliance enhanced our profitability*”. In contrast, 15% disagree with the statement. Therefore, the findings from this stage of analysis cannot be considered statistically significant at the significance level (Sig =.89).

Generally, 40% of the alliance members may not fully understand the benefits of engaging within the strategic alliance or the partners' profitability. This may be because some of those members work in the middle and operational level, where they do not deal with profits-based matter. Similarly, 15% of those members disagreed with statement, because they may believe that many alliance aspects can be enhanced economically, socially and technology as well as by profitability. However, nobody selected ‘strongly disagree’ in the questionnaire.

#### 5.4.3.2.2 Achieving Goals

To know whether the alliance members have an equal probability of agreeing with or rejecting the statement “*our goals have been achieved within the alliance*”, the researcher designed two hypotheses:

$H_0$ : All members of the alliance have an equal probability of accepting or rejecting the statement “our goals have been achieved within the alliance”.

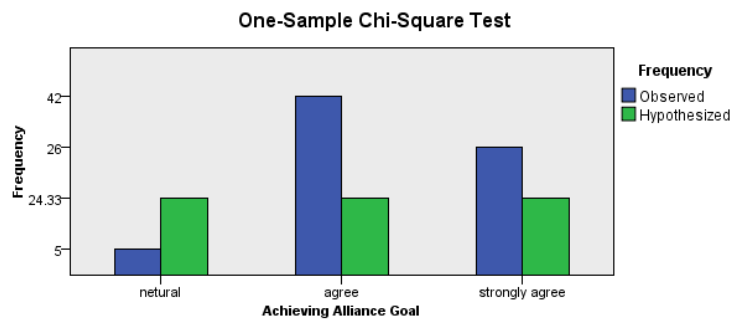
$H_1$ : All members of the alliance do not have an equal probability of accepting or rejecting the statement “our goals have been achieved within the alliance”.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Achieving Alliance Goal occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to these results, the null hypothesis was rejected, which indicates that the opinions of the alliance members vary regarding to the statement “our goals have been achieved within the alliance”. Thus, the alternative hypothesis was accepted at the significance level (.05%), and more detail can be found in Figure 5-36.



**Figure 5-36 Frequencies of Observed and Expected Responses Achieving Goals Indicator**

To obtain more in-depth findings, inferential analysis was conducted. The researcher formulated another two specific hypotheses to evaluate the opinions of alliance members. Using the following proportions is based on frequencies (see table 5-46) of the sample. The importance of this stage is to examine the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). These two hypotheses are as follows:

$H_0$ : 55% of members of the alliance agree with the statement, and 10% of the alliance members have a neutral opinion towards the statement.

$H_1$ : 55% of members of the alliance do not agree with the statement, and 10% of the alliance members do not have a neutral opinion towards the statement.



Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Achieving Alliance Goal occur with the specified probabilities.	One-Sample Chi-Square Test	.367	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The findings in the Chi-square analysis cell above demonstrate that the null hypothesis was accepted at the significance level (.05%), which shows that 55% of the alliance members agreed with the statement: *“our goals have been achieved within the alliance”*. In comparison, 10% of those members have a neutral opinion towards the statement, thus, the alternative hypothesis was rejected. Otherwise, the findings of this phase are not statistically significant at the significance level (Sig =.36).

Therefore, 55% of the alliance members believe that the main aim of cooperation within the alliance is to achieve their goals, which alliance goal will be already fulfilled in the end. In contrast, 10% of the participants might think that engaging within the alliance just involves the delivery of a project without looking to gaining any self-benefit. However, none of the alliance members chose ‘strongly disagree’ and ‘disagree’.

#### 5.4.3.2.3 Reputation

The researcher designed two hypotheses, which aimed to determine whether the alliance members have an equal probability of agreeing or rejecting the statement: *“the reputation of our brand improved through working in the alliance”*. Both two hypotheses are as follows:

*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “the reputation of our brand improved through working in the alliance”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “the reputation of our brand improved through working in the alliance”.*

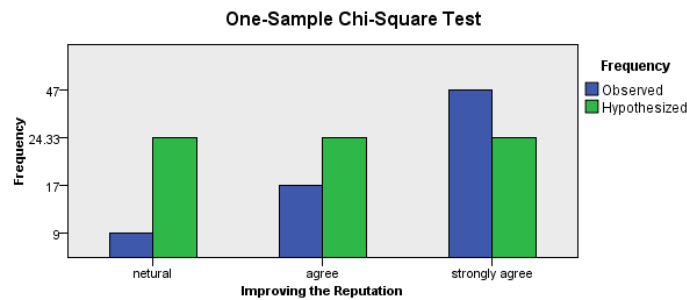
Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Improving the Reputation occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

These results are illustrated in the analysis cell, which illustrate that the null hypothesis was rejected, whilst the alternative was accepted at the significance level (.05%). This indicates that the opinions of

alliance members regarding the statement: *“the reputation of our brand improved through working in the alliance”* varied, which can be seen in Figure 5-37.



**Figure 5-37** Frequencies of Observed and Expected Responses Reputation Indicator

To obtain solid findings, another stage of inferential analysis was conducted. Thus, another two hypotheses were formulated by the researcher, which evaluated the opinions of the alliance members regarding this indicator. Adopting the following proportions is based on frequencies (see table 5-47) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they are significantly different at the significance level (.05%). The two hypotheses are as follows:

*H<sub>0</sub>: 65% of members of the alliance strongly agree with the statement, and 13% of the alliance members have a neutral opinion towards statement.*

*H<sub>1</sub>: 65% of members of the alliance do not strongly agree with the statement, and 13% of the alliance members do not have a neutral towards with statement.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Improving the Reputation occur with the specified probabilities.	One-Sample Chi-Square Test	.905	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

According to the Chi-square test findings, which are presented in the analysis cell above, the null hypothesis was accepted at the significance level (.05%), while the alternative hypothesis was rejected. Importantly, 45% of alliance members strongly agreed with the statement: *“the reputation of our brand improved through working in the alliance”*. In comparison, 15% indicated a neutral opinion. Therefore, these findings are not statistically significant at the significance level (Sig =.90).

Overall, 65% of participants believe that working within the alliance is fundamental, in order to enhance skills, experiences and capabilities; this will ultimately reflect on the organisation’s reputation,

which may generate future opportunities to cooperate other partners. In contrast, 13% of participants might not fully understand the alliance’s strategy and the benefits that can be gained by engaging with other partners. Moreover, no members selected ‘strongly disagree’ or ‘disagree’.

#### 5.4.3.2.4 Behavioural Satisfaction

In this factor, the researcher sought to determine whether the alliance members have an equal probability of agreeing with or rejecting the statement: “*satisfaction with other partners has improved through working in alliance*”. The researcher established two hypotheses to examine this matter:

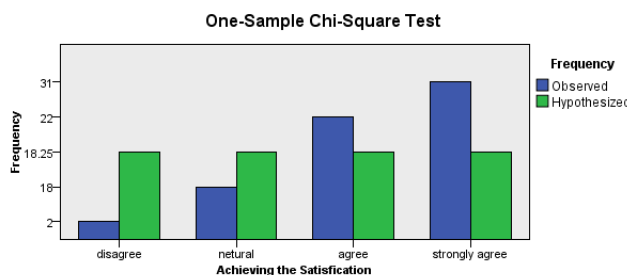
*H<sub>0</sub>: All members of the alliance have an equal probability of accepting or rejecting the statement “satisfaction with other partners has improved through working in the alliance”.*

*H<sub>1</sub>: All members of the alliance do not have an equal probability of accepting or rejecting the statement “satisfaction with other partners has improved through working in the alliance”.*

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Achieving the Satisfaction occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Based on the results are shown in analysis cell above, the null hypothesis was rejected, and the alternative hypothesis was accepted at the significance level (.05%), which denotes that there is variability in the opinions of participants regarding the statement: “*satisfaction with other partners has improved through working in alliance*”. This is illustrated in Figure 5-38.



**Figure 5-38 Frequencies of Observed and Expected Responses Behavioural Satisfaction Indicator**

For this stage, the researcher created two new hypotheses to obtain more solid findings. Selecting the following proportions is based on frequencies (see table 5-48) of the sample. This stage is important to test the observed proportions in each level against the hypothesised proportions in each level to see if they

are significantly different at the significance level (.05%). Both these new hypotheses are located as follows:

$H_0$ : 40% of members of the alliance strongly agree with the statement, and 5% of the alliance members disagree with the statement.

$H_1$ : 40% of members of the alliance do not strongly agree with the statement, and 5% of the alliance members do not disagree with the statement.

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Achieving the Satisfaction occur with the specified probabilities.	One-Sample Chi-Square Test	.356	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The findings are demonstrated in the analysis cell above, and the null hypothesis was accepted at the significance level (.05%), while the alternative hypothesis was rejected. It should be highlighted that 40% of the alliance members strongly agreed with the statement: “*satisfaction with other partners has improved through working in alliance*”. Moreover, 5% of those members disagreed with the statement. As a result, the significance of this analysis stage cannot be considered statistically significant at the significance level (Sig =.35).

Generally, 40% of the alliance members believe that working with other partners and other organisations within same project satisfies the desires of those members, where knowledge sharing, and the creation of a friendly environment help to achieve this principle among alliance partners. However, 5% may not agree with this environment because they do not recognise the essence of the strategic alliance strategy. Conversely, none of the participants selected ‘strongly disagree’.

#### 5.4.3.3 Kruskal-Wallis Test for Indicators of Strategic Railway Alliance Performance

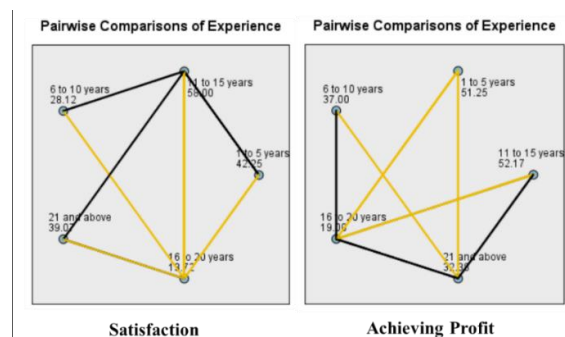
Table 5-49 shows the considerable effect of strategic alliance performance indicators on participants’ experiences with. Conducting KWT at this stage helped to explain the massive significant variance between the group of participants’ experiences related to factor 1 in section 4 in the questionnaire, which stated “*working within the alliance enhanced our profitability*”. This indicates that the null hypothesis was rejected at  $X^2_{(1)} = 20.082$ ,  $P = .000$ ,  $df = 4$ . Furthermore, factor 5 within same group of dependent variables, which stated “*satisfaction with other partners has improved through working in alliance*”, has a great, significant differentiation, and thus points to the rejection of the null hypothesis at  $X^2_{(5)} = 22.032$ ,  $P = .000$ ,  $df = 4$ .

**Table 5-49 Kruskal-Wallis H Test for Indicators of Strategic Alliance Performance**

NO	Hypothesis	$X^2$	$P$	$df$	Accept or Reject (Null Hypothesis)
1	Working within the alliance enhanced our profitability	20.082	.000	4	Rejected
2	Our goals have been achieved within the alliance	6.413	.170	4	Accepted
3	Our market position has been enhanced through the alliance	7.258	.123	4	Accepted
4	The reputation of Our brand improved through working in the alliance	6.233	.182	4	Accepted
5	Satisfaction with other partners has improved through working in alliance	22.032	.000	4	Rejected

To gaining stronger results and to determine the reasons for the rejection of these two null hypotheses, the researcher ran Dunn’s Pairwise Comparisons test to specify the significant variance between the groups of participants’ experiences/group of dependent variables (*indicators of strategic alliance performance*). More specific details can be seen in Figure 5-39, which illustrated the Box-plots of the KWT and the differences in these two variables. Dunn’s Pairwise Comparisons test shows that factor 1 (*achieving profit*) has massive diversity  $P= .001$ , between the group of experience 4 (16 – 20 years) and group 1 (1 – 5 years). Moreover, another big variance  $P= .019$ , between group 4 (16 – 20 years) and group 3 (11 – 15 years) occurred. In addition, the third difference  $P= .022$ , arose between group 5 (21 and above) and group 1 (1 – 5 years).

Regarding factor 5 (*behavioural satisfaction*), the results of Dunn’s Pairwise Comparison test demonstrated that there is a considerable difference  $P= .007$ , between the group of experience 4 (16 – 20 years) and group 1 (1 – 5 years). The second huge variability  $P= .006$ , showed between group 4 (16 – 20 years) and group 1 (1 – 5 years). The last great divergence  $P= .000$ , appeared between group 4 (16 – 20 years) and group 3 (11 – 15 years).



**Figure 5-39 Independent Sample Demonstrating the Kruskal-Wallis Tests Box-plot for Indicators of Strategic alliance performance**

In general, the null hypotheses of the indicators ‘*enhancing the profitability*’ and ‘*behavioural satisfaction*’ are rejected, because there are differences in the strategic alliance participants’ opinions regarding the statements of these indicators based on their experience in this field.

To conclude, it can be seen that the groups of participants were paid attention relating to behavioural satisfaction indicator which can reflect the importance of working within a friendly environment. obtaining partners' satisfaction enable to open future opportunities for running new alliance projects. Also, the role of gaining satisfaction has a positive impact on increasing the alliancing companies' reputations. This fact can be reflected in the rations of partners from profits. Presence the satisfaction means partners’ goals can be achieved within the alliance common goal, everything can be shared smoothly between alliance levels. Furthermore, the estimation of costs and implementation risks would be simple to be calculated which, therefore, high profits are easy to be achieved through existence the behavioural satisfaction and collaborated environment.

#### 5.4.3.4 Ranking of Indicators of Strategic Railway Alliance Performance

Ranking the indicators of SRAs performance will be based on the *Mean*, which can specify the importance of these indicators. Table 5-50 illustrates the gradually ranking of the strategic alliance performance indicators according to the responses of participants and based on the results of the quantitative section.

**Table 5-50 Ranking of the Indicators of Strategic Alliance Performance**

No	Statements of Strategic Alliance Performance Measures	Mean
1	The reputation of Our brand improved through working in the alliance	4.52
2	Our goals have been achieved within the alliance	4.29
3	Satisfaction with other partners has improved through working in alliance	4.12
4	Working within the alliance enhanced our profitability	3.53

## 5.5 Chapter Summary and the Link

In this section, the examination and discussion of the questionnaire survey was conducted. In addition, an explanation of the design of the questionnaire was included, whilst the results from the questionnaire were also included. The questionnaire was disseminated as a Survey Monkey online tool as an email link and its structure was divided into four sections. The results of the questionnaire were analysed by SPSS v.23 software, and consisted of descriptive frequency statistics, the Chi-square test (Goodness of Fit Test), and the Kruskal-Wallis test.

Section 1 of the questionnaire determined the strategic alliance participants’ profiles. In general, 73 completed surveys were returned online by Survey Monkey, and the participants who were answered the

questionnaire worked within same alliance. The responses were distributed amongst three management levels: top management, middle management and the operational management.

Section 2 of the questionnaire investigated the importance of the motivations for entering the strategic alliance and the benefits gained by entering the alliance based on the participants' experiences. These motivations and benefits were initially captured through the interview sessions and were developed within the questionnaire statements. All these questions in section 2 were analysed using descriptive analysis, which showed the high level of agreement, and thus indicates the importance of these motivations and benefits in the strategic alliance lifecycle.

Section 3(A) of the questionnaire explored the level of awareness of alliance participants in relation to the role of BSFs in achieving a successful for SRAs performance in the UK. The section was subjected to three stages of the analysis; firstly, the descriptive test measured the percentage of agreement related to these factors. Secondly, the Chi-square test (GOFT) represented an inferential test and aimed to achieve a more comprehensive view regarding the agreement with or rejection of the null hypotheses at the significance level (.05%). Thus, the hypotheses were designed to prove the validity of the study. Thirdly, the Kruskal-Wallis test (KWT) represents the in-depth results that determined the difference between the independent group (experience groups) and the dependent variables (BSFs). It particularly determined the groups with a significant difference by conducting Dunn's Pairwise Comparison test.

Section 3 (B) of the questionnaire explores the degree of awareness amongst participants regarding the BNFs that impact SRAs success. Three stages of analysis were conducted; first, the descriptive analysis tests were run to determine the level of agreement with regard to the statements of these negative factors. Second, the Chi-square test (GOFT) was conducted to determine the level of agreement and rejection of the null hypotheses at the significance level (.05%). Lastly, the KWT was run to identify the differences between the groups of independent variables (experience groups) and the dependent variables (BNFs), as well as to specify the differences between the specific groups by running Dunn's Pairwise Comparison test.

Section 4 of the questionnaire determined the importance of the strategic alliance performance indicators and the degree of affect by these performance indicators. This was determined by the presence of the BSFs or BNFs within the alliance from the statements that were developed within the interview sessions. Thus, in the first stage of the analysis, the descriptive frequency test was used to illustrate the percentage of agreement regarding to the statements. Moreover, a more robust inferential test was conducted via the Chi-square (GOFT) to determine the probability of agreeing or rejecting the null

hypotheses at the significance level (.05%). Finally, a deep analysis test was conducted through the KWT to specify the differences between the categorical group (experience groups) and the dependent variables (alliance performance indicators statements), and to determine the differences between these groups based on the participants' opinions and tested via Dunn's Pairwise Comparison test. Finally, a discussion of the findings will be provided in the next chapter.



## Chapter 6 Research Findings

### 6.1 Introduction

In chapter 4, all the data analysis of the case study is presented with the SRAs experts' interviews and questionnaire survey results (*qualitative and quantitative*). This chapter is dedicated to showing and discussing the findings, which have been revealed from analysis of the two methods as detailed in the previous chapters. Therefore, the findings discussion is divided into three sections and will cross analyse the four themes (*understanding the strategic alliance concept, behavioural success factors, behavioural negative factors, strategic railway alliance performance*), as well as being supported by the appropriate theoretical literature, to identify new and existing factors which have emerged from the primary data collection. The organisation of the finding's discussion chapter will be similar to the structure of themes and sub-themes which are discussed in chapter 4 as the majority of these factors have been extracted from the interview data collection.

Therefore, this chapter built based on discussing the findings of the exploratory sequential mixed-method design approach (qualitative and quantitative) data analysis. And these data analysed will be triangulated by the evidence from theoretical literature. In other words, findings of qualitative and quantitative are being compared and evaluated with the literature review findings. The importance of discussing and triangulation of findings helped the researcher in developing a strategic guideline and framework for strategic railway alliances in the UK which was the main aim of this research. Additionally, conducting the exploratory sequential mixed-method design will assist the researcher to generalise the strategic guideline and framework between other strategic alliances entities.

### 6.2 Exploring and Understanding the Strategic Alliance Concept (Theme 1)

This section is allocated to discuss the motivations behind entering SRAs companies and the potential benefits. The findings of both (*motivations and benefits*) will be presented by comparing the findings from the alliance managers' interview sessions, questionnaire surveys and the literature review.

## **6.2.1 Motivations for creating Strategic Railway Alliances**

### **6.2.1.1 Access to Partners' Competences**

Based on the interview and survey, access to partner competences is a motivation for the formation of a strategic alliance. The nature of this motivator appears by looking ahead; as it describes skills and knowledge which are required to meet future tasks. The results of the interview sessions in section 4.4.1.2.1 show that the importance of access to partners competences is an essential matter in establishing a SRA. Presence of this motivator facilitates the adoption of new way for dealing with potential challenges at advanced alliance stages by discussing risks with experienced partners to avoid the possibility of happening any gap in the alliance implementation. This fact is supported by the respondents in section 5.4.1.1.1, as the SRA participants positively confirmed the significant presence of this motivator at the alliance creation stage. It is completely agreed by the survey respondents that a competitive advantage can be achieved through skills and efficiency exchanges between alliance participants. In agreement Sompong et al. (2014) mention that highly educated employees, intelligence and skills, are essentially the targeted competencies sought when entering into a strategic alliance. While (Real et al., 2014, Vonortas and Zirulia, 2015) believe that sharing these unique competencies within the alliance borders enables organisations to reach the level of strategic organisational learning.

### **6.2.1.2 Sharing Required Knowledge**

The results of this research show that sharing required knowledge is an important aspect that drives organisations toward creating a SRA to develop and generate member capabilities. The significance of this motivator is represented by its capability for enabling alliance partners to employ their existing resources, experiences and capabilities and convert them into fundamental competencies, which are considered as a source of sustainable competitive advantage. Based on the interviewees' opinions in section 4.4.1.2.2, the need for entering a strategic alliance often is determined in order to acquire important experiences and knowledge from cooperated partners. The existence of this motivator is to strengthen the competitive position for the alliance and enhance the level of confidence of the alliance members when delivering the project. Furthermore, it is quite similar to the results of the participants responses in section 5.4.1.1.2 where they confirm that obtaining new knowledge at the stage of forming a SRA is extremely important for achieving alliance success.

Moreover, it is believed that sharing knowledge and capabilities will be reflected in the level of organisational learning, where responding to challenges and achieving solutions will be more flexible. The strategic alliance literature supported these points of views, for instance Bastida et al. (2017) report

that the establishment of a SA is to enhance the possibility of accessing the knowledge and resources of partners. Through the effectiveness of a SA, the benefits of acquiring knowledge, technologies, resources and access to new markets can be reaped. This is positively supported by Saunila et al. (2014) who indicate that the utilisation of external knowledge (partner experience) significantly affects the performance of alliancing organisations through performance indicators. The nature of successful business does not depend on their abilities to develop their models, but rather on exploiting the benefits of access to the knowledge of important partners.

### **6.2.1.3 Sharing Delivery Risks**

Based on the results, one of the goals of railway companies is to improve the quality of project delivery whilst minimising critical costs, hence considers one of the motivations toward establishing SRAs. Increasing costs of developing technology, financial and R&D risks, are considered important motivations for entering SRAs. The findings emerged from the interviews show that in the context of UK railway alliances, partners seek to share each potential risk can be faced at the different stages of a strategic alliance to spreading the soul of collaboration and they be well prepared to face challenges. This was also supported by the interviewees' opinions in section 4.4.1.2.3, where they asserted that the alliance had a friendly environment at different alliance levels, so any signs of possible problems or risks when delivering the alliance project could easily be spotted. This view was supported by the respondents of alliance participants in section 5.4.1.1.3, with the majority in agreement regarding the role of this motivator when entering organisations into SRAs. They indicate increasing risk sharing around alliance borders, results in the possibility of the project success being higher.

Furthermore, the level of trust between partners accelerates the process of exchanging information. For example, according to Sompong et al. (2014) generate strong economies and decrease the range of investment costs, organisations enter SAs so that the amount of contributed money and risks becomes less than expected. Moreover, Meng (2012) supports this view by stating that, to overcome risks it is important that partners responsibilities are clearly defined and determination of potential risks is accurate. Ideally, risks should be specified and then assigned to the partner who is best able to manage it. Based on these reasons, partners in established alliances are more committed, as well as arrangements and regulations of the alliance system being more flexible compared with other collaboration styles (Arranz and de Arroyabe, 2008).

#### **6.2.1.4 Developing Skills of Alliance Team**

Based on the research results, when in an alliance the ambitions of the railway companies to develop the skills of their members is enhanced, then they can collaborate with other partners to fill in practical gaps. Such is the importance of this motivator that it appeared in the interviewees' opinions in section 4.4.1.2.4, therefore, it is important to engage participants within one developed organisational process which is highly recommended by forming SRAs. The interviewees believed that allowing and encouraging participants to work with a variety of people from different backgrounds would fundamentally enhance critical thinking and expand perceptions towards overcoming problems. The questionnaire respondents confirmed this point, based on the amount of agreed responses that appear in section 5.4.1.1.4; this positive reaction would seem that participants satisfied regarding the nature of SRAs teamwork environment. Also, the positive impact gained from cooperating with other partners from different organisational cultures is clear. Therefore, due to staff acceptance of the SA strategy, it is clear that the aspirations of an increasing amount of UK railway companies to generate SRAs based on the gains and skills achieved supports its scope of utility.

This view was supported by the literature, as according to Tavallaei et al. (2015) organisations understand that forming SAs that absorb skills is better than owning a whole organisation, as possession may lead to unnecessary assets and issues related to the integration of a larger organisational system. Moreover, due to the importance of skills for leading organisations toward success, alliances are a unique strategy motivated by the desire to collaborate instead of competing to obtain new skills and knowledge. As well as enabling organisations to have dynamic capabilities, it makes them innovative and allows their market position to be protected (Inkpen and Ramaswamy, 2006). Similarly, this point was supported by Wu and Callahan (2005) who state that organisations often seek to join alliances to gain sufficiently developed skills and long-term experiences. Consequently, due to these targeted gains, organisations expect to obtain benefits from their partners such as advanced technologies and tacit knowledge based on experiences.

#### **6.2.1.5 Reduction Cost Risks**

According to the research results, to avoid the risks of increasing costs towards purchasing technologies and resources, organisations have been encouraged to enter and create SRAs that deliver projects successfully at lower costs. A clear indication regarding this fact is given by the interviewees in section 4.4.1.2.5, who state that success cannot be properly achieved if organisations are working separately because the cost of their requirements will be higher than the profits which can be gained. In agreement

with this are the participants in section 5.4.1.1.5 who demonstrated high awareness regarding the dangers of cost risks. The respondents reflected that organisations lean toward entering strategic alliances to avoid future cost challenges. Furthermore, railway companies target alliancing with highly experienced partners to compensate of their shortfalls in tangible and intangible resources.

Similarly, the same points of view Yasuda (2005), as he noted one substantial motivation for entering strategic alliances is cost reduction at every stage of the management processes leading to financial gains. Moreover, Zhang (2007) stresses that entering SAs achieves efficient production cost and effective resource exchanges, while commercial risks, therefore, are lower and management outcomes are better.

## **6.2.2 Benefits of Strategic Railway Alliances**

### **6.2.2.1 Enhancing the Profit**

One key theme from the results is the attention given by alliancing railway companies regarding high-profit achievement when entering a SRA. This point is noted by both the interviewees and survey respondents, where a high level of the agreement indicates that companies create SRAs to enhance the level of profits by gathering potential competitors inside one project, thus, the possibility of confronting any competitiveness in the future will be decreased. In addition to the reducing of possible competitors, there is the bonus of gaining what is needed to enhance practices by sharing with highly experienced partners. As a result, the profits are automatically enhanced, because challenge is decreased. This fact by the questionnaire respondents and it divided the opinions of the participants into both supporters and opponents. The supporters believe that organisations seek to fulfil their ambitions through entering into a SRA with other partners to gain the benefit of enhanced profits minus risks. However, opponents believe that alliancing organisations could likely be aimed at achieving social benefits. Both opinions could be based on the nature of the organisations' policies and their strategic mission statement. the fact of the opinions of the survey respondents was established based on the nature of their work and whether the participants in the operational stage have a responsibility in auditing the gained profits or not.

As discussed in the SA literature, Salisu and Bakar (2018) argue that by strategically gaining cooperative arrangement advantages, profits can be generated through combined resources and capabilities of alliancing companies. Therefore, the opportunities to generate and preserve competitive advantages exist. This is supported by Todeva and Knoke (2005) who report that organisations are keen to enter into alliances to gain more profit. Furthermore, Yamakawa et al. (2011) state that organisations can gain outcomes, but many of benefits can be gained from forming strategic alliances which are represented by a sustainable competitive advantage and higher profitability compared to other isolated

organisations working alone in the same industry. Finally, Pateli (2009) points out that the similarity between partners' goals and their operational compatibility, enhances profits in a SA.

### **6.2.2.2 Enhancing the Reputation**

Based on the results, alliancing companies aim to gain the benefit of reputation enhancement through collaboration with partners within the alliance. To enhance a partners' reputation, alliancing organisations seek to gain considerable benefits by learning from highly experienced partners. Also, the effectiveness of cultural relationships between partners enhances the capability of participants when acquiring experience on how to deal with different situations in varied environmental circumstances which can enhance reputation when considering future alliances. According to some of the interviewees at management level, there is evidently a perception of importance regarding working collaboratively with partners to aid understanding of delivering alliance projects and obtain a reputation that can enhance market position for future alliances. The questionnaire's responses support this view as they positively reflect on the importance of enhancing organisations reputation and achieving objectives by engaging within the alliance, as this can positively be reflected on their skills and competencies which improve competitive position.

The literature further supports the views given above, for example Wassmer (2010) believes that high-quality alliance partners can enhance the reputation of the focal organisation and other organisations even if they are still young and entrepreneurial. This is also supported by Post et al. (2015) who state that independent directors when forming SAs are primarily interested in aligning with focal stakeholders to use their contacts and business expertise, this enables participation in the alliance strategy to sustain or enhance their own reputation whilst addressing stakeholders' issues. This topic is addressed from a different angle by Staykova and Underwood (2017) who state that enhancing the reputation inside a SA can be gained by exchanging clear and open speech between partners regarding mistakes and problems. Thus, commitment would be improved by the alliance team through the learning of mistakes and resolutions, which are considered a priority for maintaining reputation.

### **6.2.2.3 Providing Necessary Resources**

According to the research results, high awareness of railway parties related to increasing demands for resources to deliver projects and decrease the risks of competition drives the formation of SRAs as the one way to gain these benefits and prevent facing these risks. Based on the findings of the primary data, two of the interviewees upheld the view that SA parties work as an open book, operating to plug resource gaps and these contributions help partners to ignite innovation to deliver an alliance project successfully

when compared with traditional collaboration strategies. At the same time improving integrative behaviours between the alliance teams, which can be reflected on enhanced trust principles. In addition, the questionnaire respondents supported this fact by pointing out that there is a strong perception related to the importance of sharing required resources between alliance partners.

Therefore, the provision of necessary resources and their allocation helps to develop partner capabilities, which can be represented by achieved performance efficiency. Salisu and Bakar (2018) support these views by reflecting on the fact that SAs stem from helping alliancing partners to acquire required resources, which develop their capabilities and can be important for evolving the spirit of innovation, performance and competitive position. Furthermore, Gronum (2015) adds that another argument for small partners to be aligned with larger organisations is to gain physical and intangible resources to promote a their better competitive advantage. While Ricciardi (2014) argues that access to important resources and management processes in a strategic alliance allows innovation expertise to grow and drive to emerge principles of creation change.

#### **6.2.2.4 Providing Necessary Technology**

The importance of technological capabilities, based on the results of this research, are crucial for the development of the organisations' abilities to deliver a SRA project. These capabilities represent a benefit that all railway parties desire because confronting environmental changes is a requirement for future success and encourages parties to seek the formation of a SRA. According to the interviewees, railway parties create an alliance as this is a proper way to gain technological expertise from other partners. Unless SAs are formed, these parties must conduct these tasks individually and pay an outside supplier for each experience achieved. Moreover, the questionnaire's participant answers support this view, as they regard technology as being a benefit gained through participation of a SRA. While, their answers are unsupportive regarding the provision of necessary technology as can be seen in further detail in the gap analysis of respondents' responses that appear in Table 5-10.

Supportive views demonstrate the desires of alliance partners to have technological expertise and conduct workshops sessions as much as possible to achieve their ambitions for delivering the objectives and staying in touch with changing demands through the context of changes and intensifying technological competition. In agreement with this are, Arranz and de Arroyabe (2008) who stress that by forming a SA, organisations enable the adoption of advances to new technologies, which results in quicker product delivery and business targets being met with greater efficiency. Furthermore, according to Quintana-García and Benavides-Velasco (2011), successful SAs rely on the number of benefits that can

be gained and which are represented by transferable novel ideas, new technologies and developed managerial experiences and skills. In alignment with the previous view, Lai and Chang (2010) believe that technological characteristics are not only technological but also represent uncertainty, complexity, novelty, taciturnity and appropriateness of the technology, which are considered substantial considerations in SA success.

#### **6.2.2.5 Enhancing Safety Abilities**

According to the research results, railway companies who aim or hope to create and / or enter SAs, seek to gain the benefit of safety system developments through sharing of critical information with highly experienced partners. As the development of safety systems means enhancing companies competitive market position. With regards to alliance benefits, two interviewees highlight development of safety capabilities to manage SA systems. Because of the importance of safety, all the procedures leading the alliance system should be planned at the initial stages, in order to recognise and pre-empt any future system problems, thus preparing the participants to be ready to fix it. Therefore, developing the abilities of alliance employees is reflected in their skills for managing further cooperation strategies in the future.

This was confirmed by the questionnaire's responses in Table 5-11, where it can clearly be seen that the awareness of alliance participants regarding enhancing the abilities of a safety system is quite high. It is believed that developing safety abilities is fundamentally related to the amount of experience which is shared between partners. According to Vilasini et al. (2012) both the literature and empirical findings indicate that safety is considered the number one factor and it has high priority on the agenda, particularly as partners have to complete a list of questions which are mainly related to safety. This is then used by alliance management when choosing to select the right partner who can satisfy alliance standards based on their safety criteria. Furthermore, according to Vilasini et al. (2012) in order to improve abilities to manage alliances, safety programmes to conduct alliance tasks should be developed, and therefore strong employees' skills are needed to operate the alliance functions.

#### **6.2.2.6 Quickly Response to the Problems**

Another important benefit identified from the results of this research is the ability to respond to and quickly deal with problems that emerge during the accomplishment of SRA jobs. Two interviewees positively confirmed the importance of this benefit during SRAs creation. The alliance participants believe that solving urgent problems that have emerged is related to the level of understanding between partners. Whilst determining the understanding depends on the amount of information that is shared among the alliance partners. Similarly, answers from the respondents in the questionnaire reflect the extent of



perception regarding the importance of sharing critical up-to-date data in order to find a quicker solution for problems and attempt to deal with them. They believe that quicker responses for alliance problems is fundamentally related to collaboration with highly skilled partners.

In addition, Bidabadi et al. (2016) confirm this point of view, by stating that the flexibility and fast response of construction alliance project problems that arise, makes the capability of alliance partners when facing increasing competitions, changes and limited resources quite high.

### **6.3 Behavioural Success Factors for Strategic Railway Alliances (Theme 2 A)**

In this section, the behavioural success factors of SRAs in the UK that have been identified from the primary data will be discussed. The findings of this theme will be shown by comparing the findings from the alliance managers' interview sessions, the questionnaire surveys and the literature review. The sections below provide in depth descriptions regarding BSFs.

#### **6.3.1 Trust**

Based on the results of the analysis, the findings strongly indicate that trust is related to BSFs and it plays an essential role in SA success. Noticeably, the relationship between trust and alliance success merits much more attention. According to the interviewees' views, transparency, the exchange of truth between partners, and sharing information related to alliance issues and implementation, are all considered positively significant. Strengthening relationships and building trust is related to the amount of data which is presented on the decision-table at alliance management level. This is reflected by Krishnan et al. (2016) who claim that partners through trust can be confident in being reliant on other partners without any signs of abusing vulnerability. While McEvily et al. (2003) support this view by stating that trust encourages partners to interpret ambiguous actions constructively between each other. Moreover, in the face of transparency and sharing of important data, Balliet and Van Lange (2013) stress that openness regarding sharing information and resources is fundamentally reliant on the level of trust between alliance partners. As this trust allows the productive building of confidence channels towards developing alliance performance rather than towards building monitoring tools on partner behaviours

Based on interviewees' opinions, the presence of commitment is highly linked to the availability of trust between alliance partners. It is believed that trust positively influences the creation of commitment. In addition, the establishment of a high level of commitment can be achieved by integrating alliance partners within the alliance framework and encouraging or instilling the trust of alliance participants

regarding the roles, policies, visions, objectives and values of the alliance as it will enhance partner allegiances. The results of the questionnaire responses confirm this relationship between trust and commitment, as most respondents believe that in order to gain positive commitment, a high level of trust needs to exist between partners to instil allegiance. In alignment with this, the results from the chi-square test in section 5.4.2.2.1 display a significance level at (Sig =.88), which shows the extent of attention given by the alliance participants regarding trust as a role in enhancing commitment inside the alliance.

Furthermore, the adaption and speed of achieving alliance tasks are associated with the level of trust and commitment of alliance partners to each other. Besides this, the results that have been obtained from the Kruskal-Wallis test regarding testing the null hypothesis were positive. This indicates that there are no significant differences in alliance participants' opinions related to the role of trust in enhancing partner commitment at ( $P = .072$ ). The respondents' answers refer to the extent of conviction felt by the alliance parties regarding the capability of trust to drive the alliance to be successful. The literature also supports this view, as, Ashnai et al. (2016) confirm that the presence of trust inside alliance relationships facilitates the evolution of inter-organisational commitment. Additionally, Seppänen et al. (2007) consider trust to be a fundamental key factor in determining commitment. While, Coote et al. (2003) found that commitment is linked to trust, which indicates the obvious differences in the influence of behaviours on commitment and trust.

According to the opinion of one of the interviewees, there is a positive relationship between the level of trust when developing an advanced version of communication among alliance partners. The belief of alliance participants is that the strength of communication between partners is positively associated with a higher level of partners trust. While, growing the trust between alliance partners enhances the convergence of communication from a formal style to an informal one. Also, the speed of sending information depends on the ability of partners to demolish barriers inside the alliance. This is supported by Tavallaei et al. (2015) who believe that due to the importance of trust when developing partners communication, partners inside the alliance should have both formal and informal communicative skills, as this ability will allow them to learn from each other through daily interactions and meetings. Furthermore, (Kramer, 1999, Thuy and Quang, 2005, Meier et al., 2016) support the views of the interviewees as they concur that the strength of trust between partners is crucial, as conducting alliance functions cannot be developed without the presence of cumulative interaction and advanced formal and informal channels for exchanging information between partners.

Building trust is not an easy mission and cannot be achieved immediately or grown during a small period. Therefore, one of the participants concentrates on the point of building trust by improving

relationships between partners. Based on the interviewee's point of view, making alliance parties engage within the alliance process at the early stage is difficult, as the diversity of cultural partner backgrounds which can be challenging. Therefore, conducting programmed training sessions and regular workshops is a fundamental method to absorb and understand alliance instructions, policies and responsibilities. Similarly, according to Meier et al. (2016) relationships allow the recurrent matching of the observed and expected partner behaviours and in the case of positive experiences present, they provide a developmental path to trust. Furthermore, based on the findings of the study by Balliet and Van Lange (2013) strong relationships enable alliance partners to effectively manage gaps and avoid the misunderstanding of alliance procedures through established collaborative interactions based on trust principles.

### **6.3.2 Commitment**

According to the detailed results gained from this research, the findings show that the perspective of commitment is central to building business relationships for SRA parties. As stated by the interviewees' opinions, the commitment concept involves both behavioural and attitudinal aspects. Firstly, the development of alliance relationships and the willingness to achieve sacrifices are part of the commitment principles. Secondly, intentions towards maintaining and continuing alliance relationships rather than looking forward to replacing partners or alliance charters are related to the commitment ethos. Furthermore, the interviewees place emphasis on commitment as being key to successful relationships. Whilst the diversity of the backgrounds of alliance partners play a positive challenge in determining SRAs success. Consequently, in order to make alliance parties completely integrated and committed to the alliance process, it is important that the partners mix within the alliance process and that their objectives are matched with the common objective of the alliance.

Similarly, the responses of the questionnaire strongly support the interviewees' opinions in section 4.4.2.2. In addition, the results of the Chi-square test place positive support on the other empirical findings at a significance level of (Sig =.38), where alliance members believe that successful relationships cannot survive unless commitment has completely grown. More intensive results upheld by the Kruskal-Wallis test demonstrate that alliance members are totally convinced that commitment is a key factor in the success of partners' relationships at ( $P =2.39$ ). With the role of commitment pushing strategic alliance towards success. As Chen et al. (2011) state that alliance partners are always willing to use their valuable resources when conducting a small sacrifice in the short-term in order to gain the benefit of long-term success. According to the empirical findings of Chen et al. (2017), commitment obtains a significant positive impact on relationship value. This is indicated when partners feel positively towards their aligned partners, with a high level of confidence and satisfaction meaning that they are more likely to engage within

inherent relationships. Whilst (Huang and Wilkinson, 2013, Serigati and Azevedo, 2013, Martins et al., 2017) state that the strengthening of alliance relationships, which seek to fulfil strategic goals, are motivated by commitment.

Accordingly, based on the interviewees' opinions, there is an excellent relationship between trust and commitment. This relationship can move SRAs to achieve success. As the development of trust and commitment through effective interaction among alliancing organisations enhances cooperation and improves the ability to maintain the alliance network. The findings of the literature support this point of view, as Martins et al. (2017), report that trust and commitment positively affect the relationship inside an alliance by allowing smooth information sharing and maintaining the network of the SA structure. Furthermore, the findings of Ashnai et al. (2016) contribute to the understanding of how trust and commitment are key to enhancing relationships and promoting collaborative behaviours.

Notably, some of the interviewees focus on the degree of relationship between commitment and dependency. Due to the nature of the SRAs, sharing everything among partners should be flexible. This is attributed to the dependence of alliance partners on each other and is strongly linked to the amount of loyalty for the alliance charter. Thus, maintaining alliance functions, along with the proper distribution of responsibilities and the creation of a smooth environment, relates to the behavioural factors being integrated. This is supported by the literature, as according to Gulati and Sytch (2007b), dependency can increase a partner's commitment to the relationship, and thus their orientation can be motivated toward cooperative behaviour. Furthermore, based on the empirical findings of (Hingley et al., 2011, Luzzini et al., 2015), there is a positive relationship between dependency and commitment. To gain strong relationships inside SRAs the relationship between knowledge sharing, mutual dependency and a high level of commitment should be obtained.

### **6.3.3 Knowledge Sharing**

The results of this research have confirmed that knowledge sharing is a core determinant of SRAs value. A successful SRA is linked to the ability and willingness of partners to share knowledge, which is considered a key factor, although at times it seems to be clearly missing during the delivery of alliance success. According to the opinions of the interviewees, to achieve SRA success, there is no need to share all kinds of knowledge (tacit knowledge), rather the aim is to shorten the path to fixing and plugging work gaps and accelerating the delivery time of the alliance project. Moreover, participants believe that the value of SRAs success cannot be gained through only the sharing of existing knowledge. As enhancement

of the alliance value is critically determined through the measurement and amount of trust and transparency that exist between partners.

The answers from the survey supported the interviewees' opinions, as the vast majority of respondents are convinced that the value of a SRA position in the railway industry is determined based on the availability of knowledge shared through alliance borders and valuable lessons that are learnt during the implementation of alliance tasks. Furthermore, after proposing hypotheses to find additional true results, the Chi-Square test results in section 5.4.2.2.4 agreed that the importance of knowledge sharing is a foundation pillar for alliancing organisations, to develop their abilities and competitive advantages, with a significance level of (Sig =.69). Whilst, the role of knowledge sharing in increasing the alliance value is strongly confirmed by the results of the Kruskal-Wallis test in section 5.4.2.3.1, which accepted the null hypothesis at ( $P =.673$ ). Moreover, this is in accordance with secondary data. as (Meier et al., 2016) believe that to help a SA create value, similar organisational characteristics should be shared between alliance partners, such as facilitating cooperation and promoting efficient knowledge sharing. While Lo et al. (2016) support this view by stating that the creation of an alliance value is determined by the possession of distinct knowledge resources, such as the ability to transfer, replicate and transform knowledge between alliance partners. This is regarded as an essential source for developing alliance success. Furthermore, Khamseh and Jolly (2006b) assert that the accumulation and combination of partner knowledge is an essential element for creating alliance value, which can be reflected positively on alliance performance and help to sustain a competitive advantage.

Additionally, some interviewees attributed lessons learnt and experiences as crucial components, that can be obtained through the sharing of knowledge between alliance partners. They believe that working with highly experienced partners, will help to avoid the issue of making wrong decisions during delivery of an alliance project. Therefore, due to the importance of lessons learnt, alliancing companies seek to enhance their market position and reputation by gaining the benefit of partners' long-term experience and improving the participants' competencies. This view is supported by the findings of Lo et al. (2016), Moghaddam et al. (2016) , who state that the goal of aligning organisations is to learn a partner's unique skills and capabilities, as well as expertise and sharing knowledge, this offers access to partners' created relations and understanding of the nature of their behaviours, which helps to develop a strong market position.

One significant point made by an interviewee is that the level of knowledge sharing essentially relies on the strength of communication between alliance partners. With regards to the role of communication and knowledge sharing success, alliance partners are convinced that conducting several workshop

sessions, especially in the initial stages of SRA formation, is a solid guide to the smooth transfer of knowledge among alliance partners. This view is upheld by the alliance literature, for instance, Y. Li et al. (2014) report that a high level of communication among alliance partners facilitates the establishment of strong relationships inside an alliance-building, a higher level of trust and smooth knowledge exchange. Furthermore, Badir and O' Connor (2015) argue that when a considerable amount of information and knowledge needs to be shared, communication among alliance partners needs to be frequent. This fact is founded on the required organisational learning and knowledge that will determine the amount of communication needed, in order to facilitate the transfer of knowledge required effectively.

### **6.3.4 Mutual Communication**

Based on the results of the primary data of this research, communication has been recognised as a fundamental behavioural success factor in SRAs, that enhances and facilitates effective sharing of skills and experiences between partners and strengthens the bond inside the alliance. The interviewees who are considered experts within alliance management, highlight the role of communication in driving an alliance to success, by emphasising the use of positive communication to learn and coordinate the required skills. As well as helping to develop and sustain the continuation of relationships inside the alliance. Further substantial ideas from the interviewees' opinions indicate that effective communication is key for determining the importance of knowledge, which is needed to make proper decisions and improve the procedures of alliance actions. The responses of the questionnaire also supported the interviewees' opinions, as the majority of respondents in Table 5-16, pay attention to the role of communication in alliance success and how it accelerates the exchange of experiences and skills between partners.

Moreover, more robust findings using a Chi-Square test, demonstrate that alliance members have a positive perception related to effective communication as an essential tool used to achieve the smooth sharing of knowledge and skills between partners, at a significance level of (Sig =.95). In the same manner, positive findings were identified using a Kruskal-Wallis test after accepting the null hypothesis, which validates that most of the alliance participants have strong awareness regarding the role of communication and how it can quicken and facilitate skill sharing and alliance success, at ( $P =.563$ ).

This view is also upheld by the literature, as Walter et al. (2015b), value the importance of communication as a crucial means to successful coordination of strategic alliances, which allows the continuous flow of information and knowledge between partners. In addition, because it enables the exchange of interfirm skills and experiences and goal adjustments, this increases the value of mutual communication among alliance parties. Moreover, given that the role of communication in alliance

management results in positive change, Colin (2010) asserts that communication facilitates understanding of the skills and knowledge that partners need to adopt and the effectiveness of these factors impacts on how the alliance will succeed. Furthermore, communication encourages the possibility of establishing a substantial base for interaction processes such as informal meetings, which can improve its quality. As the findings of Wenwen and Baiyu (2015) indicate that through high level communication frequency, ideas sharing and skills are enhanced, which promotes a more collaborative relationship and provides a closer harmony between alliance partners.

Noticeably, half the interviewees consider the best way to conduct successful communication inside a SA is through informal or oral communication. It is believed that using an informal manner helps to reduce time costs, which are increased when holding formal meetings and workshops. It also strengthens partner relationships, as informal communication bonds parties and eliminates boundaries. This is supported by the literature, as according to Shin et al. (2012) long-term alliance relationships simplify informal communication by way of the best method, as it enhances the strength of partner trust and commitment towards the alliance process. In agreement with this are (Youngtae et al., 2010) who declare that sharing ambitions regarding the formation of a unique vision with alliance partners result in the promotion of communication, which is reflected by the understanding of the alliance rules and development of their capability to share an alliance model and embrace principles of working together.

Based on the interviewees' opinions, communication within a SA, specifically at the initial stages, assists to create and set the foundations of the alliance vision. Therefore, to form a typical vision that is applicable and achievable, alliance partners should have regular communication (formal and informal) and meetings to discuss personal goals that are compatible with the common objective of the alliance. This is supported by (Russo and Cesarani, 2017) who declare that sharing ambitions regarding the formation of a unique vision with alliance partners result in the promotion of communication, which is reflected by the understanding of the alliance rules and development of their capability to share an alliance model and embrace working together.

### **6.3.5 Mutual Dependency**

Another important factor identified is a dependency, which is considered as a structural aspect and helps to maintain positive relationships in SRAs. Most interviewees focused on the role of dependency in building alliance trust, where high dependency enhances the establishment of relationship channels inside the alliance, thereby creating trust smoothly. To gain the positive effects of dependency, alliance partners should be fundamentally committed to the alliance charter, which encourages the sharing of critical

information and knowledge in order to achieve alliance success. Furthermore, the interviewees' opinions capture a variety of angles such as the importance of partner satisfaction whilst the alliance vision is set. This helps to match targets of partners with common goal and enhances the generation of trust and commitment, which can be reflected by enhanced dependency between partners. This is supported by the questionnaires, as the majority of respondents in Table 5-18 confirmed the extent of the awareness of alliance participants and the role of dependency in building trust.

In addition, findings from the Chi-Square test, illustrate that more than half of alliance participants believe that mutual dependency is a key element, which drives alliance relationships towards success through the building of trust, at a significance level of (Sig =.51). In alignment with this, the Kruskal-Wallis test findings show that engaging staff positively within a SRA is related to the desire for sharing everything between partners, developing participants' skills and experiences to improve market position and competitive advantage, at ( $P = .478$ ).

These views are boosted by the findings of the literature, for example (Yang et al., 2014) report that trusted relationships inside SAs can be enhanced by closed networks, which reflect partner dependence. As well as repeated direct interactions between alliance partners, as this improves long-term organisational relationships and deters negative behaviours during the short-term. Moreover, Ozcan and Santos (2015) confirm that dependence between alliance partners increases their trust and commitment to the alliance relationship and determines their strategic orientation critically toward cooperative behaviour. While, a different point of view is revealed by (Chen and Xie, 2018) regarding relationships between dependency and trust, as they claim that to enhance the generation of dependency between partners, complicated tacit knowledge should exist, so that partner coordination, trust and organisational learning will be enhanced.

### **6.3.6 Non-Coercive Power (Democratic Power)**

Based on results of the research, alliance partners believe that in order to integrate relationships and achieve sustainability, allowing the alliance team to be part of the decision-making process will activate the principles of non-coercive power. As successful alliance decision-making processes rely on the capability of the management team to gather all partners around the table and discuss their opinions seriously in a democratic environment. The interviewees have confidence in empowering the participants from different levels of the alliance to share their experiences regarding project implementation issues, as it will enhance the spirit of collaboration. The questionnaire responses are similar to the interview findings, as Table 5-28 shows that alliance participants regard the use of non-coercive power (democratic power)



as fundamentally the best way to discuss all opinions and select the most suitable one to guide the alliance towards success.

While, the findings of the Chi-Square test refer to half of the alliance members, at a significance level of (Sig =.23), who consider that working in a crucial competitive environment, where opinions are taken from all the participants at a variety of levels in the alliance, will be beneficial for successful delivery. However, when conducting the Kruskal-Wallis test, to simulate the experiences of the alliance participants related to the non-coercive power factor, the null hypothesis was rejected at ( $P =.013$ ), due to the different reactions recorded according to their experience category. Although, Sucipto et al. (2015) assert that by adopting the principles of non-coercive power, the capability of partners will increase and it will keep relationships integrated and sustainable, with clear visions, missions and motivations that are evident in a democratic environment, that will motivate alliance members to work and be part of the alliance process. This is supported by Donato and Shee, (2015) who argue that non-coercive power increases partner commitment, thereby desires to drive collaboration to success will be high. Another point of view regarding the importance of this factor in alliance success is offered by (Huo et al., 2019) who claim that the effective use of non-coercive power by cooperative leadership within the decision-making process, can enhance the principles of dependency and reshape the structure of collaborative relationships by giving each partner a responsibility that should be achieved during alliance implementation..

### **6.3.7 Openness to Challenge**

A further factor identified during this research is that partners are open to challenge opinions positively under the SRA dome and that it enhances their capability to produce decisions and implement them successfully. Although this dimension has not emerged or been explored in the conceptual framework of this research, some of the experienced managers of the alliance under study engaged within the interview sessions, confirm the role of this factor in the achievement of best decisions through the brainstorming of ideas. The interviewees assert that to create a successful alliance, the building of opposition positively regarding partners' ideas, enables the alliance participants to be part of the decision-making process. This also helps to avoid threats in the business environment and enhances the growth of trust between partners.

Similarly, the results of the questionnaire support the interviewees' opinions, as the majority of respondents in Table 5-19, displayed awareness regarding the importance of building positive discussions and the freedom to challenge during the implementation of the alliance decision process. They believed that the availability of a democratic environment within a decision-making meeting, motivates capability to make fundamental decisions. Furthermore, after proposing critical hypotheses to obtain in-depth

findings, the Chi-square test findings were at a significance level of (Sig =.62). This illustrates that alliance participants acknowledge that by adopting a challenge way of partners' opinions, this makes the discussions more relevant and engaging, especially when attempting to find solutions to issues. In alignment with these findings, and to prove that there is no existing or noticeable difference between participants' responses, the Kruskal-Wallis findings in section 5.4.2.3.1 demonstrate that participants despite their varied experience support the previous findings at ( $P =.870$ ). literature supports this fact, challenging opinions positively assists alliance team management to share their experiences and specific knowledge during the decision-making process such as meetings, brainstorm sessions and workshops task forces and so for (Sluyts et al., 2011).

Whilst some of the participants in section 4.4.2.7 feel that to challenge opinions positively there must be trust and transparency between partners. It is believed that trust between partners determines the strength of the communication channel and the amount of information and knowledge which can be shared between them. Additionally, where there is an existing trusted climate, the challenge of partners' opinions is highly recommended, because putting everything on the decision table, will lead to peaceful discussions of alliance issues without the appearance or risk of conflicting behaviour, which is the aim of creating an alliance.

### **6.3.8 Understanding Alliance Objectives**

According to the results of this factor, it is observed that sharing an understanding of SRA objectives structures the capability of alliance partners to work constructively in teams and it enhances the ability of problem-solving, which can lead an alliance to success. The interviewees confirm that encouraging alliance partners to work together cannot be achieved unless there is (organisational and behavioural) understanding of alliance principles and objectives. Although some interviewees believe that understanding the principles of the alliance is the responsibility of the leadership. Training sessions and workshops should be planned and conducted to guide partners on the alliance requirements and what needs to be carried out. This is highly important to make partners participate and fully engage with alliance procedures and is represented by organisational understanding. Whereas, behavioural understanding is a supplement of organisational perception. Ensuring that participants attitudes are compatible with their partners can be achieved by encouraging teams to be mixed and share everything. As participation cannot be considered fulfilled unless participants work together within the same place, so that their cultural patterns are joined and mixed to achieve one target.

The answers to the questionnaire also support the interviewees' points of view. While the reaction of the alliance participants regarding the importance of understanding alliance objectives especially at the initial stages, reflects the amount of development that has occurred in the UK railway industry. This finding confirms that railway companies cannot launch an alliance project, unless they are fully aware of the objectives and completely understand those of the selected partners, for it to be achievable. The role of effective communication between partners to facilitate objectives and understanding cannot be ignored. Furthermore, the findings of the Chi-square test in section 5.4.2.2.7 prove this fact at a significance level of (Sig =.62). Similarly, the Kruskal-Wallis findings in section 5.4.2.3.1 confirmed truth of the null hypothesis by accepting it at ( $P =.2.2$ ). Whilst a review of the literature shows that the opinions of the interviewees and the questionnaire responses are supported by the literature. For instance, according to (Niesten and Jolink, 2015) communication and information sharing are essential means to build an understanding of alliance objectives and obligations, which can develop the foundations of effective collaboration. In addition, (Kumar, 2014a) states that to enhance the clarity of alliance processes and facilitate development of SA consensus, communication and information sharing should be developed to achieve a better understanding of alliance objectives. Furthermore, Russo and Cesarani (2017) observe the argument from a different angle by focusing on organisational understanding, by asserting that to conduct proper alliance evaluation at the initial stages, the selection of appropriate alliance performance measures is crucial, as they can provide complete comprehensive understanding of the alliance process and support partners in the decision-making process regarding further development in relationships.

### **6.3.9 Training**

According to the results, training represents a guide for alliance partners, as it increases their awareness regarding new working models, styles and the environment. By focusing on the reality of training and what benefits can be gained through its application, the role of training programmes in building the organisational skills of an alliance is substantially observed. According to the opinions of the interviewees, training reflects on the development and rehabilitation of alliance partners and ensures they are fully engaged during application of the SRAs. It is believed that the unification and mobilisation of capabilities and experiences, encourages ambitions. Whilst conducting formal workshop sessions, training and informal meetings during the SRA process are priorities that enhance project delivery.

A comparison of the similarity between interviewees' opinions and the questionnaire responses in Table 5-27 positively indicates the importance of training when developing the skills and knowledge of participants related to alliance requirements. It is observed that awareness is high relating to the role of training to improve partner relationships and grow the principles of trust. Similarly, the respondents via

findings in the Chi-Square test confirmed a significance level of (Sig =.38). This demonstrates understanding of the effectiveness of training programmes when explaining in detail alliance responsibilities and what critical tasks need to be carried out during implementation.

However, differences appeared in the responses of the questionnaire regarding the role of training and its motivation towards gaining awareness by alliance partners. With regards to skills enhancement, based on the respondents' experience, the Kruskal-Wallis test in section 5.4.2.3.1 recorded a null hypothesis rejected at (P =.016). Whilst, according to Riley et al. (2016) the positivity of training influences collaborative leadership and it should facilitate learning derived from the partners, which can be generated in training sessions, workshops and meetings. Partners can then participate and practice within different scenarios of the collaboration process. Additionally, AlMaian et al. (2015) refer to it as enhancing the participants performance and collaboration in the railway industry. They argue that management level should conduct effective training sessions to enhance personnel quality and skills, and that it can also determine the root of poor quality caused during collaboration implementation. Regarding the role of training in knowledge sharing enhancement, (Niesten and Jolink, 2015) suggest that through formal and informal alliance processes and the organisation of highly qualified training sessions, alliance management and participants can share beneficial knowledge smoothly.

### **6.3.10 Teamwork**

According to the research results, working as part of an effective team is an essential component of achieving a successful alliance project. Teamwork should accommodate, strengthen and align relationships between alliance partners, and ultimately increase participants productivity. The opinions of the interviewees are related to the importance of teamwork in relationships as it improves cross-functional learning skills and enhances aligned incentives related to cooperation. Moreover, due to the difficulty of conducting organisational goals individually in a competitive environment, the creation of SRAs working collaboratively as one team is an ideal solution. The interviewees also mentioned that enhanced principles of teamwork reflect on the quality of communication (formal and informal), which helps partners to understand the alliance requirements and ensures the correct information is transferred to improve the building of trust and commitment.

Regarding the questionnaire responses, they were similar to the interviewees' opinions, this shows the extent to which the UK railway participants focus on working collaboratively and alliancing teamwork. Furthermore, the findings of the Chi-Square test were at a significance level of (Sig =.05), which signifies that most alliance members believe that they cannot deliver the alliance objectives unless all partners are

working together under one roof and displaying teamwork. Moreover, the findings of the Kruskal-Wallis test support all previous points of view at ( $P = .307$ ) by accepting the null hypothesis, that teamwork principles can achieve the alliance process better than conducting responsibilities separately.

In addition, the SA literature confirms the primary data findings, for example, Zoogah et al., (2015) assert that managing alliance processes and activities through joint teamwork facilitates effective communication between managerial levels and helps to provide and enhance problem-solving skills and interactive patterns. Furthermore, Dedy et al. (2016) report that when a breakthrough performance is required, it is important to generate active teamwork to develop integrative activities and enhance production efficiencies whilst encouraging innovative spirit related to issues of collaboration.

Through an intensive review of the interviewees' opinions it is possible to observe that they regard the pure spirit of teamwork as guiding the alliance towards success and that it demolishes the barriers between alliance managerial levels. Whilst spreading a democratic climate where the sharing of opinions is encouraged is an appropriate way to ensure that partners become integrated and work as one team. This view is supported by Weaver (2008) who states that overcoming barriers can be fulfilled by the effective process of team-building, shared visions, integrated common goals, effective communication and the spreading of democratic language.

### **6.3.11 Aligned Objectives**

According to the results of the research analysis, the top management of SA members assert that directing partners' objectives towards a common alliance goal is fundamental to successful delivery of an alliance project. In order to ensure that alliance partners are headed in a specific direction, it is important that all objectives, visions, and expectations are perfectly aligned towards a specific goal. Therefore, gathering all alliance partners around the decision table and discussing their needs is critical for unification of efforts. While directing these efforts and goals can be achieved by behavioural fusion between alliance partners. The interviewees also discussed focusing on linking partner objectives at the creation stage of the alliance, as aggregating partners at the preparation phase helps to build trust and commitment. It also helps to determine the priorities, requirements and enhance awareness during the alliance implementation process.

In agreement with these views, most of the questionnaire's respondents agree that aligning partners' goals is essential for accelerating alliance success. Additionally, the findings of the Chi-square test in section 5.4.2.2.11 supported the findings that the alliance members value aligned partners' objectives in achieving alliance project accomplishment. Similarly, the opinions of the respondents also tested and proved positive via application of the Kruskal-Wallis test in section 5.4.2.3.1. According to a review of

the alliance literature, (IšoraItè, 2009) warns that developing alliance strategy requires aligning partners' objectives with a common collaborative strategy and that this step requires careful studying for alliance feasibility, rationale, major possible issues and challenges, which can all be confronted during the production stage. Moreover, achieving compatibility between alliance leaders, partners and objectives is essential, as asserted by (Schweitzer, 2014) who stresses that aligning alliance leaders' objectives with the goals of partners and directing it towards overall alliance objectives will support internalisation, collaboration and harmony between alliance teams. This is supported by Yitmen, (2013) who concentrates on the role of trust in creating opportunities for achieving intensive alignment between alliance goal and partners' objectives.

### **6.3.12 Selecting Right Partners**

Selection of the right partners is observed as a significant factor in the research results and it is crucial for successful SRAs performance. Due to the importance of selecting the right partners as a consciously strategic decision, alliancing organisations use a variety of criteria which reflect a wide range of factors and represent many elements of the organisations' needs. According to the interviewees' opinions, the relationship between alliance success and choosing the right partners is high. The strategy for selection of appropriate rivals to be partners is related to breaking down the competition by convincing competitors to be engaged within an alliance context. Concentration should be focused on highly experienced partners, to facilitate the sharing of critical knowledge and enhance the capability of the participants by transferring skills without wasting money on training sessions contracts. The interviewees assert the inevitability of intensive studying of the business models of partners to avoid facing the challenge of incompatible skills.

Furthermore, the findings of the analysed questionnaire responses demonstrate that members of the UK railway industry realise the importance of selecting partners who have appropriate and impressive skills in which to fulfil alliance success. Also, section 5.4.2.2.13 shows strong evidence was proved by the findings of the Chi-Square test regarding the importance of this factor as a top requirement to deliver an alliance project smoothly. In addition, section 5.4.2.3.1 highlights the positivity of this factor as it was confirmed by the Kruskal-Wallis test as an accepted null hypothesis. A review of the related literature, established that Akhavan et al., (2015) strongly assert the importance of this factor, as they argue that it can lead to the minimisation of total alliance target costs and workshop sessions, whilst maximising alliance profits and improving the quality of the products and it is a vital goal to achieve these requirements. Similarly, Lee (2014) highlights environmental uncertainty and increased competition, by stating that effective selection of the right partner motivates alliancing organisations to be prepared for future actions. By giving the opportunity of complementary resources and reducing the possibility of

maximising costs and threats of environmental uncertainty. Finally, Yayavaram et al. (2018) focus on alliancing organisations obtaining a critical type of knowledge that guides the way to facilitation of acquiring knowledge from others by adopting and selecting the right partner.

The interviewees also raised the importance of dealing with highly experienced partners, as it increases the opportunity to exchange experiences and enables the possibility of gaining benefits from previous lessons learnt. Asking for help regardless of level or hierarchy from trusted and committed alliance authorities, will ensure that daily challenges are overcome, and the experiences are enhanced. This is highlighted by Milanov and Fernhaber, (2014) who claim that international organisations that have gained experience working with domestic alliances are able to boost the performance of other partners by providing lessons and direct awareness learnt from previous experiences.

### **6.3.13 Partners Interaction**

Partner interaction is a distinct way that can positively affect alliance success and develop organisational learning through the synergy of alliance partners and the sharing of skills and experiences. The primary data, especially the interviewees' opinions concentrate on ways of developing interactive behaviour between partners. One key finding is that successful partners who interact essentially depend on the leadership management to offer a democratic environment, which allows those from different alliance levels to engage in the decision-making process and listen to points of view related to challenges surrounding alliance achievement. Likewise, the majority of questionnaire responses in Table 5-29 support the opinions of the interviewees with regards to the importance of interaction as a factor and how it can enhance partner capabilities through the development of skills by sharing learning and knowledge, which are considered vital in alliance success.

By comparing the findings of the Chi-square test and the Kruskal-Wallis test in sections 5.4.2.2.16, and section 5.4.2.3.1 with previous findings and opinions, the results are similar. As this factor is deemed extremely important the literature review revealed many articles and results that support the primary data findings. For instance, according to Dionysiou and Tsoukas (2013) by championing and beginning interactions from the start between partners, the level of understanding and behaviours can be fundamentally enhanced, as well as improving the capabilities of practical achievement and joint activities. Furthermore, Zheng and Yang (2015) recommend engaging within an alliance relationship from the start through interactive behaviour, so that structural arrangements can be developed, which in turn can be reflected on partner goals, values, and assumptions. Thus, a new generation of innovation can be created, which gains and takes advantage of a double loop of learning and knowledge.

Harmony, trust and commitment during the developing stages of SA are important motivators to enhance interactive capabilities, according to the opinions of the interviewees. Whilst developed interaction cannot be present unless alliance partners have improved communication facilities and can transfer critical information smoothly, such as those related to problems. Therefore, a synergy of efforts is required to support trust and commitment building through the development of communicative tools which can be reflected in the principle stages of organisational interaction. This is mentioned by (Henderson and Smith-King, 2015) who emphasise the importance of trust as it reduces uncertainty, helps to confront alliance actions, promotes partners' commitment, and develops SA relationships. Ultimately, trust is an essential key in motivating ongoing interaction between partners and it can help to support innovation and problem-solving skills by enhancing communication between partners.

### **6.3.14 Constructive Conflict**

The main fact noticed in the research results with regards to constructive conflict as a behavioural success factor is that it aids to sustain alliance relationships through the engagement of open-minded discussion both physically and mentally in order to determine the fate of a SA. Based on interviewees' opinions, the main desire for creating an alliance is to increase the benefits of sharing tangible and non-tangible resources, while reducing the implementation challenges and costs. It is believed that adopting this behaviour provides opportunities to share ideas, brainstorm and solve problems. Constructive conflict also allows insight into hidden ambitions and whether a partner seeks to achieve success for the alliance or for self-interests.

According to the answers given during the questionnaire distribution, the findings demonstrate the amount of synergy between alliance members at the middle and lower levels within the SA. This harmony is displayed as up-to-down communication among alliance management levels to exchange opinions related to issues and attempts to solve them. Concurrently, the findings of these responses via the Chi-Square test also proved this fact in section 5.4.2.2.8. However, when applying the Kruskal-Wallis test to confirm validity, a null hypothesis measuring the degree of stability for the findings in section 5.4.2.3.1 was reversed, where a null hypothesis was rejected because there is diversity in the respondents' responses based on experience regarding the role of constructive conflict in maintaining relationships inside an alliance.

The literature confirmed the importance of constructive conflict in successful SA relationships, for example Liang et al., (2010) assert that through the adoption of constructive conflict behaviour, opportunities for creating learning skills will be high and provide sparks of essential opinions that can



improve the quality of ideas generated by the alliance team. Furthermore, the findings of (Cheung et al., 2003) prove that the positive effects of constructive conflict can provide a variety of perspectives that can function to improve the quality of the decision-making process. While, research by Wu et al., (2017) is in agreement with the interviewees' opinions with regards to the interaction between trust and constructive conflict. They argue that the direct influence of trust and conflict is smaller than the indirect influence and that trust can moderate destructive conflict inside an alliance project and contribute to the establishment of added value for the alliance. Whereas, constructive conflict can motivate more constructive ideas and opinions which helps to create the trust mechanism.

### **6.3.15 Aligned Partners' Visions**

By reviewing the results of this research, it is clearly noticed that aligned/ shared partners' visions are a base for enabling partners to adjust their strategic orientations and be perfectly applicable to SA perceptions. The opinions of the interviewees strongly support the statement with regards to the role of compatible partners' visions to accelerate alliance success. It is believed that the leadership team should play a big role in the vision of link alliance with partner ambitions. In addition, the availability of a smooth environment allows different perceptions to be shared through a free climate, which enhances the speed of building trust and commitment principles. The interviewees concentrated on the importance of a vital communicative method (formal and informal) that unifies partners' behaviours during the strategic vision settlement.

The findings of the questionnaire responses agree with the interviewees' opinions. The responses in Table 5-25 reflect the comprehension of the alliance members in relation to discussing the influence of partners' visions in the initial stages to determine the requirements for alliance delivery. Furthermore, robust findings were identified from the Chi-Square test in section 5.4.2.2.12, which proves that the alliance members realise the role of unified visions as key to strengthening partner relationships and achieving success. Consistently, this factors importance was confirmed by the positive findings gained from the Kruskal-Wallis test in section 5.4.2.3.1 when compared to the construction integration literature, where fundamental matching is mentioned thus reinforcing the findings of the primary data.

According to the findings of Oyewobi et al., (2015) to achieve a properly integrated vision, the leadership management team should represent drivers for integrative development and establish a fixable atmosphere for partners to fulfil prosperity and improvement , which leads to continuous enhancement in collaborative performance and increases the opportunities of gaining knowledge. Moreover, according to the suggestions that emerged from the findings of (Hearld and Alexander, 2014) aligned alliance visions

are able to mediate relationships between alliance leadership, the management process and perceptions of the mother organisation, which enhances the perceived value of the alliance.

### **6.3.16 Behavioural Accommodation**

According to the research results, guiding a successful SRAs is linked to the ability of partners to be accommodating with their actions in the alliance programme. The managers interviewed refer to an essential point which is to ensure that partners are accommodated, as they should feel grounded during the alliance stages. The accommodation of partners is determined based on the level of acceptance that appears regarding self-objectives and strategic orientations. Also, the interviewees assure that management of effective training sessions and active communicative tools, especially in the early stages, will enhance partners confidence which can be reflected on behavioural accommodation.

The questionnaire findings in Table 5-30 support these opinions as most alliance members displayed positive reactions regarding this factor. The findings of the Chi-Square test in section 5.4.2.2.17 also proved the importance of this factor by the level of agreement recorded. Furthermore, a review of the findings from the Kruskal-Wallis test in section 5.4.2.3.1 show that experienced alliance participants understand the value of being accommodated within all alliance implementation stages. The literature review also points out the role of this element in relationships success, for example Zeng et al., (2016) claim that by adopting the principles of accommodation, alliancing organisations can recover weaknesses in partner relations and enhance the ability to drive cooperative relationships further. Also, Bello et al. (2010) emphasise that accommodative behaviour is not only a strategic response to mitigating issues of increasing partner opportunism and competitive actions, but that it fundamentally seeks to improve constructive discussion and sustain problem-solving which results in positive cooperative relationships.

### **6.3.17 Leadership**

The positive influence of leadership behaviour and its ability to generate an optimal vision can be reflected on participants' behaviours and has been identified through the research findings. Considering the importance of the interviewees' opinions, to create a strong vision for the alliance, the leadership team should consider the effectiveness of a communicative role between partners. It is important to critically buy-in through a joint envision regarding positive plans, by motivating problem-solving principles, and paying attention to the personal behaviour of alliance participants, while encouraging the sharing of experiences. The interviewees also stress that the formulation of a strategic vision should be conducted through a democratic environment of decisions-discussions and understanding partners' perceptions are

imperative to clearly reach applicable agreement related to sharing goals and determining the facilities required to achieve them.

In addition, the questionnaire responses support the alliance managers opinions, that the role of leadership plays a substantial role and is indispensable. As according to the findings, the importance of a leadership team in creating a strategic vision and delivering an alliance project is renowned. The percentage of agreement is shown in Table 5-23 which highlights the members satisfaction with leaders' actions and the methods for dealing with issues in a democratic climate. To strengthen the findings achieved both the results of the Chi-Square test in section 5.4.2.2.10, and the Kruskal-Wallis test in section 5.4.2.3.1 confirmed positivity.

Moreover, the primary data matches with the secondary data in the construction literature, which distinguishes the role of a leadership team in creating a strategic vision. For instance, Chan et al., (2014) report that leaders can facilitate participant's attention and aid comprehension towards inspiring and achieving alliance goals, as they can create a compelling strategic vision in an enthusiastic way that expresses confidence and optimism with regards to the future. Furthermore, the importance of communication in accelerating the adaption of future alliance visions is supported by (Schweitzer, 2014), who recommends that communicating to encourage participants to absorb the strategic vision of the alliance, will stimulate the behaviours of the alliance team to be communicative and interactive, which will support the learning mechanism during the alliance process. The following section discusses the findings of BNFs that hinder SRAs performance success.

## **6.4 Behavioural Negative Factors of Strategic Railway Alliances (Theme 2 B)**

This section focuses on the discussion of behavioural negative factors that impact on the performance of SRAs, which emerged from analysis of the primary data. Discussion of these findings is conducted through a comparison of interview session findings, questionnaire surveys, and the literature review. The next sections include a detailed description related to these BNFs.

### **6.4.1 Coercive Power (Dictatorial Power)**

Through exploration of the impact of coercive power, the alliance members noted that frequent use of coercive power can be damaging to the relational norms of trust and commitment and that the cooperation's essence could be affected due to increasing conflictive aspects and discouragement of participants willingness. The interviewees' opinions based on their experiences within railway alliances

concentrated on the negative impact of using this type of behaviour for the goal of creating an alliance and achieving consensus in the decision-making process. It is believed that using this type of power can generate hidden conditions of distrust in the collaboration norms, while traditional thinking by alliance leaders when giving orders will enhance conflict and opportunistic thoughts.

When comparing the interviewees' opinions with the questionnaire findings, the answers in Table 5-35, show positive signs regarding the capability of sensing the negative impact of coercive power, building trust's norms and alliance success. In addition, findings from the Chi-Square test in section 5.4.2.5.3 confirm that more than half the alliance members fully understand the importance of escaping traditional thinking and empowering strategic ideas through the equal sharing of information to reach implementable decisions. While the findings from applying the Kruskal-Wallis test in section 5.4.2.7 highlight that alliance members understand the risks of adopting this type of behaviour.

In addition, according to Lu and Hao (2012), using coercive power during established long-term cooperation will generate a negative effect on the relations between partners and cognition-based trust. While, Donato and Shee (2015) assert that negative association will be accompanied by adopted coercive power and that direct implications include negative impacts on relationship trust, knowledge supply chains, cooperation, commitment, and conflict resolution, which in turn will critically impact on the effectiveness of construction supply chain collaboration. Finally, the findings of Akhtar et al., (2016) support the research findings by establishing the negative impact of coercive power when building innovative and cooperative relationships, and how innovative practices can be hindered by applying this traditional power.

#### **6.4.2 Distrust**

Based on the results of this research, the occurrence of distrust between alliance partners is related to the expected acts carried out by partners which could potentially cause damage. This reason can stem from mismanagement and poor guidance at leadership level, where partners' interests are the main goal of alliance achievement. This is reflected by the interview findings, where the weakness of leaders to carefully study a partners' backgrounds could result in misalignment and opposing reasons for creating a collaborative SRA. According to the interviewees the number of negative behaviours that can appear during the occurrence of distrust include conflict, partners blaming one another and opportunistic behaviour. The results of the questionnaire support this fact, as alliance members highlight this negative element, which can be seen through the percentage of positive agreement in Table 5-36, It is obvious that

they are aware of the reasons that lead to distrust and what actions should be followed to avoid signs of this BNF.

Moreover, the impact of distrust was totally confirmed by the Chi-Square test in section 5.4.2.6.4, experienced participants from the railway sector displayed determinants regarding signs of this negative factor. Also, by checking the results via the Kruskal-Wallis test in section 5.4.2.7 the findings obtained were positive. While the literature on construction alliances support this argument, as according to the findings of She, (2013) distrust results from misunderstanding, miscommunication, and untimely resolutions and discussions of issues between the leadership team and their partners. Furthermore, Ogwueleka and Maritz (2013) assert that the use of traditional guidance for achievement during collaboration of the construction industry to meet leaders' expectations and objectives, will lead to distrust and conflict.

Another important point which emerged from distrust as a BNF in the interviews and how it negatively impacts on the destiny of alliance relationships and project delivery is that by losing trust, behaviours and tangible resources would be affected. This means that in terms of behavioural impact, conflict and opportunistic behaviour could appear, whilst associated commitment to the alliance charter could suffer and decline. Whereas, with regards to tangible resources, partners could limit supply of required assets if trust is lacking and the sharing of information and knowledge could be detrimentally affected if partners notice ambiguity in alliance relations.

According to Chan (2017) when managers are reluctant to make swift decisions especially when at the stage of assessing partners, the level of trust could be reduced between collaborative partners and managers, which then impedes the extent and development of the relationships. Meanwhile, Wong et al. (2008) explain that distrust in collaborative railway projects will likely result in integration dilemmas, insufficient outcomes and project failure. Notably, in projects that contain evidence of distrust, the leadership team will use extensive control mechanisms to monitor collaborative performance, which will enhance the leaders' satisfaction regarding the outcomes but will generate a high level of disputes, a low level of commitment and poor or inadequate sharing of knowledge (Hasanzadeh et al., 2016). In addition, Lessing et al. (2017) demonstrate that appearances of distrust could result in delays in conducting construction and related partner tasks, which would have a debilitating impact on partner involvement and a growing feeling of apprehension, resentment and distrust between partners.

### 6.4.3 Lack of Mutual Communication

Due to the importance of communicative behaviour in determining SA success, the hampering of communication between partners, as mentioned in the research findings, can derail the start-up of a project, significantly undermine the cohesion of an alliance team and impact negatively on performance. According to the managers' opinions observed in the interview sessions, the creation of a SA project will result in a new environment, which could combine partners from a variety of diverse organisational cultures. Therefore, a lack of evident communication (formal and informal) can accelerate an existing mistrust and suspicion, that could undermine both the procedures and effectiveness of an alliance. The interviewees argue that poor communication between partners could lead to the disintegration of an alliance team, resulting in missed project deadline delivery and inefficient performance and skills.

Ineffective communication can impact on partners' trust and commitment and the effectiveness of the strategic alliance, which leads to conflict between partners. The findings of the questionnaire in Table 5-37 validate that alliance members realise the importance of building developed communication channels to enhance cohesion and teamwork and solve upcoming challenges easily, as well as their awareness regarding the impact of poor communication between partners. This is positively supported by the findings of the Chi-Square test in section 5.4.2.6.4 positively supported the fact of previous findings. While, findings of Kruskal-Wallis test in section 5.4.2.7 are different, as there was a variety of opinions amongst alliance members based on their experience in the railway industry, thus a null hypothesis was rejected.

The findings above are supported by the literature review, for example, Chen et al., (2013) stress the dangers of poor communication as it can affect the maintenance of mutual partner relationships and impede the information flow between SA borders. Furthermore, Sarhan and Fox (2013) assert that poor communication has a negative effect between partners when attempting to deliver a successful railway project. Whilst, with regards to the relationship between poor communication and the appearance of increasing conflict between partners, Vaux and Kirk, (2018) emphasise that low or poor communication during a railway project is one cause of conflict, and increased levels of conflict will decrease the exchange of communication, thus this vicious cycle will result in a negative impact on effective team management and project partners.

#### **6.4.4 Destructive Conflict**

According to the results of this research, conflict is a double-edged sword. In the previous section 4.4.2.14, conflict is shown as a constructive factor, but in section 4.4.3.4, it is recognised that conflict can also be a destructive influence. Through analysis of the results and interviewees' opinions, concentration appears to act as a constructive conflict, with different forms in relation to its impact on partner relationships in SAs. It is believed that poor partner management, including exclusivity at the decision-making table, lacks understanding of partners' ambition to gather mutual goals and connect with a common alliance goal, which in turn sparks constructive conflict. In addition, the effects of conflict on mutual trust are widely discussed in the interviews, as the managers stress that the existence of constructive conflict can undermine the presence of trust, which will generate into distrust and ultimately damage alliance relationships. It could also impact on the effectiveness of knowledge sharing, organisational learning and developing skills.

An evaluation of these opinions alongside the questionnaire responses, demonstrates strong supportive agreement in Table 5-33 by the alliance members, this high level of agreement indicates that railway alliance members can carefully read and identify negative signs of conflict which affect alliance implementation. Similarly, both the findings of the Chi-Square test in section 5.4.2.6.1 and the Kruskal-Wallis test in section 5.4.2.7 are positively aligned with the relevant opinions provided. Whilst the findings of Malhotra and Lumineau, (2011) confirm that the degree of trust can be affected by conflict especially if the alliance charter is designed based on unbalanced priorities between the aspirations of partners and the main goal of the alliance. Similarly, Karlsson and Kindbom (2018) reveal that the generation of conflict usually occurs through partner disagreement or misunderstanding and the significant negative impact of this behaviour is detrimental on collaborative performance, relationships and implementation costs. Moreover, according to Christoffersen (2013), the negative impact of conflict on SA performance is likely to lead to distrust, misunderstanding, anxiety, and a reduction in the efficiency of partners' integrative activities.

#### **6.4.5 Opportunistic Behaviour**

Rational risks can impact heavily on successful SRAs, based on analysis of the results, a lack of partner commitment can breed the emergence of opportunistic behaviour, thus undermining the prospects of alliance targets. According to the interviewees' opinions, alliance partners, not surprisingly, tend to pursue self-interest apart from being committed to the common interest of the alliance and this is a sign of commencing opportunistic behaviour, which could spark conflict. Based on the dangers of opportunism

and how partners commitment can be affected by this behaviour, mutual trust is indeed damaged, which creates serious threats to embedding social alliance relationships. Furthermore, controlling this behavioural problem is demanding as it has a crucial impact on the sustainability of superior SA performance.

According to the questionnaire's findings in Table 5-34, the alliance members believe that the building of alliance relationships should be founded on the distribution of benefits, the development of skills and partner reputation. As it is widely acknowledged that behaving opportunistically will destroy trust and commitment principles, as well as the breakdown of mutual relations in the alliance generally. Importantly, positive findings were shown from the Chi-Square test in section 5.4.2.6.2, as most of the alliance members realise the risk of thinking opportunistically and its impact on the level of commitment to the alliance charter. Similarly, the Kruskal-Wallis test findings in section 5.4.2.7, which are formulated based on the experience of alliance members, support the previous opinions.

Moreover, the secondary data is aligned to support the reality of negative opportunistic behaviour and its impact on the level of trust and commitment within alliance relationships. According to the findings of (Afonso Vieira et al., 2011, Jena et al., 2011, Barroso-Méndez et al., 2016) the impact of opportunistic behaviour reduces the level of trust directly, while the effect on the level of commitment is indirect as it is mediated by the trust impact. Furthermore, Berger et al. (2004) confirm that reducing the level of opportunistic thinking and communication problems between alliance partners, will result in the trust, commitment and interaction being improved, and vice versa.

#### **6.4.6 Lack of Commitment**

The results of this research have identified that reduced levels of partners commitment towards the alliance principles is a risk and will affect the ability of alliance members to be motivated to achieve alliance success. However, without understanding the reasons behind a decreased level of commitment, it will be hard to determine the number of risks and their negative reactions, which can be reflected in the productivity of the SRAs. According to the opinions of the interviewees in the UK railway sector, a lack of commitment happens when there is no convergence of ideas and opinions between the leadership team and the partners. This problem could be due to the diversity of cultural partner backgrounds and inadequate language of understanding. It is believed that poor flow of communication to inform partners regarding alliance responsibilities, is a reason for a lack of commitment and non-completion of tasks. Furthermore, the motivations of alliance members are linked to the level of commitment to the alliance



charter. Based on the findings, conducting procedures that differ from what is applied in the initial alliance workshops, will obstruct the availability of commitment principles.

The exploration of this issue was supported through the opinions of alliance members taken from the questionnaire survey, where their selected answers reflect the degree of agreement shown in Table 5-37. This shows that alliance partners through long-term working relationships realise how important being committed to the alliance strategy is and what negative issues will appear if there is a breakdown or insufficient commitment. The findings of the Chi-Square test in section 5.4.2.6.5, and the findings of the Kruskal-Wallis test in section 5.4.2.7, supported the fact that losing commitment has a negative impact on the motivations of alliance members and could ultimately result in failure of the SRAs. A review of the literature supports these opinions, for instance, Henry Jin et al., (2013) state that when a lack of commitment exists, the results of upbeat positive alliance performance will be undermined due to loss of perceived behavioural motivation and interaction. Furthermore, Che Ibrahim et al. (2014) assert that the effects of distrust and poor commitment in construction alliances results in deterrence of the development of motivations and an integrated alliance team..

Another reason for poor partner commitment, based on the opinions of the interviewees, is ambiguity of the alliance principles and fragmentation of the alliance partners, which results in the misunderstanding of alliance procedures and the creation of conflict between alliance partners. Eksoz et al. (2014) emphasise that a lack of trust and commitment represents a barrier for successful collaboration. Whereas, weakness of trust and commitment is the path towards conflict between alliance partners. Moreover, the findings of Jacobson and Ok Choi, (2008) assert that poor unification of an alliance vision and insufficient partner commitment negatively impacts on the success of a construction partnership project. Notably, what is not considered are the negative stages that can appear through shortage of important elements. As an absence of BSFs will enhance the feeding and thoughts of opportunistic self-interest, which will promote partners conflict, thus these negative effects will undermine the efforts of the resolution problems.

#### **6.4.7 Lack of Knowledge Sharing**

Through the research results, one significant factor highlighted is the lack of knowledge sharing between SA parties, which reflects a negative picture regarding the value of decisions required and its impact on the joint activities that should be generated between alliance partners. The opinions of the interviewees concentrated on highlighting the role of this negative factor, as the sensitivity of sharing knowledge (tacit and explicit) strongly relates to the clarity of trust that should exist between partners. Critically sharing knowledge is needed to share experiences among partners and enhance skills through lessons learnt to

facilitate the process of reaching the correct decisions. A crucial reason for entering the alliance in the first place and one that encourages trust and commitment. Therefore, to erode competitiveness between rivals, clients should consider carefully their choices used to tie parties together within one context. As gathering parties under the umbrella of a SRA is essential to combat competition and reduce the costs of external training experts.

Thereby, the negative impact of poor or insufficient knowledge sharing, according to the interviewees' opinions in section 4.4.3.7, can appear in the behaviours of the partners when creating the alliance. While targeting the objectives beneficially will positively affect the organisational system. Whereas, difficulty regarding production could reflect poor knowledge sharing during implementation of the decision-making process. The primary data from the questionnaire supports the opinions of the alliance managers, as the percentages in Table 5-39 represent the attention that is paid by railway sector members regarding the importance of sharing knowledge in order to gain satisfied outcomes required for delivery of the alliance project. Furthermore, the findings of the Chi-Square test in section 5.4.2.6.7 show that most of the alliance members confirm the role of poor knowledge sharing frustrates the possibility of connecting partners during management meetings and hampers focused strategic decisions. However, based on the findings of the Kruskal-Wallis test in section 5.4.2.7 alliance members regarding the impact of insufficient knowledge sharing on the decision-making process, have offered differentiated responses compared to the primary data findings.

Moreover, secondary data has proven difficult to find as there is a gap in the literature regarding the impact of this BNF. According to Alkhurajji et al. (2016) the role of insufficient knowledge sharing in business projects and how it can negatively affect the value of project activities means that there is a need for private organisations to cooperate with main clients and understand, translate, and evaluate the knowledge potentially required. In addition, Cui and O'Connor (2012) refer to the limitation of knowledge sharing in alliances and how it relates to the functional heterogeneity between partners which results in a lack of overlapping knowledge. Consequently, this factor should be explored further as selection of the right partners, who share knowledge and understanding of potential challenges is extremely important for the implementation of the alliance process.

#### **6.4.8 Misunderstanding the Alliance Objectives**

Another negative impact identified by the research is misunderstanding of SRAs objectives. According to the opinions of the interviewees, there are various reasons why partners misunderstand, and this can impact negatively on planning the alliance charter, distribution of tasks, and ensuring that partners

participate within the alliance process. In the likelihood of misunderstanding this could result in the leadership team failing to deliver the ideas behind creating a SRA, which could result in the cost of conducting introductory workshops being high. Relating to the compatibility between alliance parties, a misunderstanding could lead to fragmentation and a growing distrust in relationships, which means that partners will follow their own business model due to a lack of evident guidance and a unified, consistent alliance business model. To confirm this fact, the findings of the questionnaire survey in Table 5-41, based on the experience of alliance members, shows the level of their intelligence in terms of understanding the negativity of this factor and its ability to convert alliance success to failure.

To strengthen the arguments of this research and confirm the negative impact of this factor, the findings of the Chi-Square test in section 5.4.2.6.9, and the findings of the Kruskal-Wallis test in section 5.4.2.7 have proven the validity and negativity of this factor. Through a review of the literature, there are many aspects which can be impacted by occurring misunderstanding, which support the opinions identified in the primary data. For example (Das and Teng, 2000, Bouncken et al., 2015), report on the negative side of pursuing alliance partners to feed self-interest, generate misunderstanding and opportunistic risks, as it potentially increases losses which can incur added expenses to the alliance. Furthermore, Haghirian (2011) focuses on how communicative misunderstanding impedes the capability of growing partner interaction and impacts on the learning process. It is also important to add another argument to support the views of the primary data regarding the reasons for partner misunderstanding within an alliance, as (Pesch et al., 2016, Aggeri and Segrestin, 2007) report that divergent communication can make the connection mechanism inside an alliance complicated and lead to the occurrence of misunderstanding and increase the costs of miscommunication.

#### **6.4.9 Lack of Mutual Dependency**

Through the results of this research, it has emerged that missing or a lack of dependency between partners has a considerable negative impact on the success of strategic alliance implementation. A lack of dependency directly affects the efforts of building partner trust, which has been mentioned by the interviewees, but there are reasons why this issue happens. Firstly, the needs of the alliance partners should be made clear when at the initial stages of SRAs creation. Also, the interviewees explain that the behaviours of partners and the feeding of their desires will determine whether there is development and scope for this negative behaviour. Whilst the establishment of an alliance relationship aims to make partners dependent on each other, to share experiences, knowledge and innovation, a lack of dependency will generate distrust and conflict. Therefore, it is important to ensure the awareness of alliance managers is compatible with the views of the rest of the alliance members regarding this BNF.

The reactions of the experienced members related to the impact of a lack of mutual dependency between partners and how it affects alliance relations, are collated in Table 5-40. The questionnaire findings refer to the number of risks that can occur if this factor exists inside an alliance. Furthermore, the findings of the Chi-Square test in section 5.4.2.6.8, and the findings of the Kruskal-Wallis test in section 5.4.2.7 support the fact that the presence of this negative factor is detrimental within alliance relationships. In addition, strong arguments and the comparing of opinions with the literature as secondary data have resulted in agreement. As according to Zhang and Huo (2013), the relationship between trust and dependency is based on transactional cost theory, as if dependence is positive and high among some alliance partners but others are not willing to build trust with those partners, the relationship is more likely to develop opportunistic behaviour and result in failure.

#### **6.4.10 Unaligned Partners' Objectives**

According to the results of this research, unaligned partners' objectives undermine the capabilities planned to achieve SA success. It has been revealed through the interviewee's opinions, that non-accurate or inappropriate studying of the nature and background of alliancing companies, with their business models and what their targets are within the common goal of an alliance, will determine negative impacts on the efforts of the partners within one context to achieve one objective. Similarly, based on the records in the questionnaire responses, alliance members in Table 5-42 have shown strong agreement in regard to the negative role of this factor and how it affects SA success. This is supported by the findings of the Chi-Square test in section 5.4.2.6.10. However, although at all stages of the findings, signs were given to the extent of member awareness regarding this factor, the findings of the Kruskal-Wallis test in section 5.4.2.7 have illustrated that there is a diversity of opinions regarding the negativity of this factor based on members' experiences. Moreover, searching for evidence of this factor in the strategic alliance literature related to the railway field has proven difficult. Although investigation through the exploration of different countries and backgrounds has identified a case of strategic alignment in Malaysia. According to Ayoup et al., (2016), Ayoup et al., (2015) unaligned strategic objectives between parties can happen if strategic alignment fails to complete, which can lead to miscomprehension of the arrangements and the goal of alignment becoming unattainable.

### **6.5 Indicators of Strategic Railway Alliance Performance**

This section includes a discussion of SRAs performance indicators that positively or negatively influenced by behavioural factors. These indicators have emerged from both the primary and secondary data. In addition, the discussion of this section evaluates and compare the findings of the interview sessions,

questionnaire surveys, and the literature review. The subsequent sections provide more accurate details with regards to these indicators of SRAs performance.

### **6.5.1 Achieving Goals**

According to confirmation of the results of this research successful SRAs performance is measured by the degree of alliancing organisation goals achieved under the alliance umbrella. A review of the interviewees' opinions has proven that they seek to reduce the costs of implementing the project through alliance creation. As it aggregates the efforts of aligned organisations, which can develop new opportunities such as increased outcomes and improvement of opportunities for enhancing organisational reputation within the railway field. Furthermore, it is believed that the number of goals achieved, and the accomplishment of the project surpasses those of companies conducting the work individually. Within the same context, importing experts and resources will be much more expensive than those of an alliance.

The primary data findings collated from the questionnaire also support this fact as can be seen in Table 5-46, where the railway companies try to fulfil their goals by avoiding the determinants of a competitive environment. In addition, they seek to gain further opportunities by working with highly experienced partners. Moreover, the findings of the Chi-Square test in section 5.4.3.2.2 illustrated the desires of alliance members to create an alliance with the aim of successfully achieving hard to reach goals. Along with these positive findings, the Kruskal-Wallis test in section 5.4.3.3 demonstrates the reality of this element by highlighting the amount of compatibility between alliance members according to their experience.

Additionally, the secondary data has supported these ideas from a different angle, for instance, Schilke and Lumineau, (2018) claim that successful alliances can be achieved when the parties show their desires to share critical things within the alliance and information, communication, routinised interaction and language are shared to promote the probability of understanding common goals and responsibilities carried out by each partner. Furthermore, Yang et al. (2015) provide several important goals that can be achieved by creating a strategic alliance, including a reduction in inventory risks, the lowering of production costs, the acceleration of project delivery, the expansion of market share and reputation, and the tackling of uncertain business environmental conditions.

### **6.5.2 Achieving Profit**

Achieving profit is the main goal that companies pursue, and this fact is confirmed through analysis of the results of this research. The opinions of the interviewees are focused around the idea that achieving profit is usually related to the success of the implementation of a SA project. Due to the importance of profit as

a positive indicator, the relationships and capabilities of alliance members can be enhanced according to the positive signs of alliance success and the amount of profit gained that can be distributed between partners. If planning at the initial stages of the SA is constructive and well thought out, this will improve ability to positively face challenges which could impact on success and therefore the level of profits will be high.

In contrast, the findings of the questionnaire were different from the opinions given in the interviews, as shown in Table 5-45, as opinions are related to the nature of work or the social mission that the companies are trying to deliver through the alliance. Also, the findings of the Chi-Square test in section 5.4.3.2.2 support this reality as there is a negative reaction from alliance members regarding this element. Similarly, the findings of the Kruskal-Wallis test have confirmed this fact in section 5.4.3.3 by showing the diversity between alliance members' opinions in regard to this indicator based on their experience in the construction field.

In addition, the alliance literature explores various aspects of profit as an indicator, for example, Hong and WM Chan, (2014) argue that adopting profitability as a constructive tool to measure the joint venture returns and growth of market position, is considered important to determine the level of project success. While, Min and Joo (2016) state that due to the importance of profit in SA success, its margins cannot be improved unless the aligned organisations enhance their internal operational efficiency. Finally, Larimo et al. (2016) express that measures such as profit can be considered quite significant as a measure for joint venture performance especially in the early stages of it.

### **6.5.3 Reputation**

To determine the role of SRAs in enhancing the reputation of its partners, an analysis of the research results was carried out. According to the interviewees' opinions, creating a SRA helps to increase the opportunity of taking advantage of a significant competitive edge within the business market to enhance the reputation. This advantage can be reflected in the reputation of these companies when targeting further alliances in the future. The interviewees assert that the reputation of partners and their ability to engage in worldwide businesses along with their capacity to absorb skills from highly experienced partners also confirms the importance of this indicator. Furthermore, this reputation is often highlighted and supported by the media along with the partners' capabilities to manage projects. These opinions are positively supported by the questionnaire findings, as can be seen in Table 5-47 where the satisfaction of alliance members in regard to an alliance improving their skills and reputation is reflected in their market position.

Noticeably, the findings of the Chi-Square test in section 5.4.3.2.3, and the findings of the Kruskal-Wallis test in section 5.4.3.3 have proven the importance of being part of a SRA and highlighted the tangible and intangible benefits for both skills and reputation. While the secondary data supports the findings of the primary data, for example, Jiang et al., (2016) emphasise that alliancing between two dominant competitors will benefit both particularly their reputations. Furthermore, Lin and Darnall (2015) express that creation of an alliance with a diversity of partner backgrounds will help to address the issues of external pressures to improve the alliance image. It will also improve reputation and strategic position, whilst enhancing the business ability of the current partners, which in turn will accelerate their chances of survival in a changeable environment.

#### **6.5.4 Behavioural Satisfaction**

Through the results, it can be observed that the performance of SRAs and its success can be measured by the degree of the alliance partners' satisfaction with regards to other partners and legislation of the implementation process of SRAs. The opinions of the interviewees demonstrate that this indicator is significant in enhancing SA success. Emphasis is placed on how issued reports show the level of current work carried out through the alliance and how these reports can positively improve the satisfaction inside the alliance and enhance the reputation of partners in the future when they wish to create another alliance. The building of partners satisfaction requires an improved method to identify positive friction between partners as this is fundamental to strengthening and reinforcing relationships and enhances the level of honesty and trust inside an alliance.

In terms of the questionnaire findings, Table 5-48 shows that alliance members are completely aware of the importance of activating personal satisfaction towards the alliance process, which can be positively reflected on the alliance performance. In addition, the findings of the Chi-Square test in section 5.4.3.2.4 verify that this norm is significant in determining alliance success. Whilst, the findings of the Kruskal-Wallis test in section 5.4.3.3 have identified that alliance members based on their experience in the railway industry have displayed variable opinions with regards to the relationship between partner satisfaction and alliance success.

Moreover, the literature confirms the findings of the interviews and survey, as Kohtamäki et al., (2016), Lee et al., (2018) stress that there is a positive link between strategic alliance performance and increasing partner satisfaction. While, Selnes and Sallis, (2003), Yeh et al., (2018) assure that successful alliance relationships and alliance performance can fundamentally be reliant on the amount of partner satisfaction with alliance relationships and the efficiency of the work carried out.

## **6.6 Chapter Summary and the Link**

This chapter was provided with an evident picture of discussing the findings of semi-structured interviews, questionnaire survey and linking with efforts that have been conducted by previous studies in the literature. The findings were structured logically to be presented in the format of a strategic guideline and framework that enhance the SRAs performance to be successful. Given that, the next chapter provides critically the strategic guideline and a framework of this research.



## Chapter 7 Findings and Outcomes

### 7.1 Introduction

How the empirical research findings and previous studies from the literature discussed and explained in chapter 6. The mechanism of development of the strategic guideline and framework are presented in this chapter by investigating critically the behavioural negative barriers that assist in developing the negative aspect in regard to BNFs which can hinder delivering the performance of strategic railway alliances. Following which, the mechanism of the strategic guideline and focused indicative actions are described, and the framework is demonstrated to enable delivering the SRAs performance successfully.

### 7.2 Revisiting the Conceptual Framework of Strategic Railway Alliances in the UK

The findings of the literature review along with the findings collated from interviews and the questionnaire survey, have contributed to the development of a better understanding in regard to this research painting a clearer picture related to the key factors and the relationships involved, which can illustrate the main components of a conceptual framework. Thus, the findings of the literature review have provided a wider and broader understanding for the researcher, which has helped to narrow down the research focus regarding key behavioural factors and its impact on the SRAs performance. Most of the evidence in the literature review (case studies and surveys) as shown in Chapter 2 concentrate generally on BSFs, with some BNFs. In Chapter 2 also, the conceptual framework for this research is illustrated, as shown in Figure 2-, which shows the interactions and relations of both sides of the behavioural factors, motivations and the benefits, which can improve the degree of clarity.

Importantly, the findings of this research are based on a semi-structured interviews and questionnaire survey, which show that there are several key BSFs. Notably, more than has been presented in the literature review, including (*non-coercive power, open to challenge, training, selecting the right partners, constructive conflict, and accommodation*). While several BNFs have been identified that were not mentioned in previous literature studies, namely (*coercive power, lack of commitment, lack of knowledge sharing, misunderstanding, lack of dependency, and unaligned objectives*). Consequently, Table 7-1 demonstrates the differences between the group of factors used to build an initial conceptual framework and the additional factors that have occurred through data collection and analysis. It also explains how the factors discovered will be utilised to develop a proposed conceptual framework for SRAs in the UK.

Furthermore, as highlighted this research will identify and employ the motivations and benefits and how they can be affected by behavioural factors, as well as how SRAs performance can be influenced by these behavioural factors.

**Table 7-1 Differences between Group of Behavioural Factors Used to Build Conceptual Framework and Factors utilised to Develop Conceptual Framework**

Factors Adopted from Literature Review to Build Conceptual Framework	Factors Adopted from Literature Review, Interviews, Questionnaire survey to Develop a Conceptual Framework
Trust, commitment, mutual communication, knowledge sharing, mutual dependency, partners' interaction, leadership, understanding the alliance objectives, aligned partners' objectives, aligned partners' visions, teamwork	Trust, commitment, mutual communication, knowledge sharing, mutual dependency, partners' interaction, leadership, understanding the alliance objectives, aligned partners' objectives, aligned partners' visions, teamwork, non-coercive power, training, openness to challenge, selecting right partners, constructive conflict, behavioural accommodation.
Negative Factors Adopted from Literature Review to Build Conceptual Framework	Negative Factors Adopted from Literature Review, Interviews, Questionnaire Survey to Develop Conceptual Framework
destructive Conflict, opportunistic behaviour, distrust, lack of mutual communication.	Destructive Conflict, opportunistic behaviour, distrust, lack of mutual communication, coercive power, misunderstanding the alliance objectives, lack of commitment, lack of knowledge sharing, lack of mutual dependency, unaligned partners' objectives.

The setting of a conceptual framework in Chapter 2, Section 2.13, is to develop a tool that can strategically manage and evaluate the influence of two dimensions (*behavioural success and negative factors*) on SRAs performance through the capability of creating strategic guideline for the railway industry, which can strengthen their market position and minimise weaknesses. Research findings of this current research reflect similar issues in the SRAs explored. Nevertheless, according to the philosophical stance of this research (see section 3.3.4), namely intersubjective, this research presumes to be able to switch between external reality and multiple reality of the actors' perceptions. Accordingly, the pragmatism approach followed to explore the impact of the behavioural factors on the performance of SRAs in the UK to provide a possible explanation.

An empirical exploration of the devised information gained from in-depth insights into behavioural factors has helped to investigate its importance and impact on SRAs Chapter 4, and the data collected using a questionnaire survey has strengthened the information provided and confirmed the impact of these factors in SRAs performance as elaborated in Chapter 5. During Chapter 6, the overall findings of the interview sessions, the questionnaire survey and the literature review, strongly enhanced the need for a developed framework. Ultimately, the research findings according to five components (*motivations, benefits, BSFs, BNFs, and indicators of strategic alliance performance*) have been synthesised to build

guidelines for SRAs in the UK offering advice and clarification on the exact way to implement the performance of SAs effectively.

### **7.3 A Framework for Enhancing the Success of performance of the Strategic UK Railway Alliances**

The process of development of the framework is considered the core of the outcomes of this research. The definitions of the framework are widely discussed by scholars, such as (Ward et al., 2012, Fisher, 2010, Jabareen, 2009, Ngulube et al., 2015) which were mentioned in Section 2.13. Accordingly, the empirical outcomes gained from this research is logically developed to design the framework to enable the steps investigated to being interpreted and understood with respect of problem examined. Primarily, the findings are translated based on three research gaps which are shown in the conceptual framework (see section 2.13). Thus, the framework clarifies the gaps which identified and the way to enhance and adopt them to achieve SRAs success. The main aim of the framework is intended to help managers of strategic UK railway alliances to revise the plans regarding forming the alliances and how to develop BSFs and minimise the risks of confronting BNFs which can reflect on the success the performance of the SRAs in the UK. In order to validate both the strategic guideline and the extended framework, the validation process is conducted.

Accordingly, to provide a simplistic and reasonable guideline for UK railway alliances, the next sections discuss all factors and elements which are shown in Figure 7.38, and its relationships and impacts with each of the SRA performance indicators. This process is crucially important, which considers the core outcomes of this research, where the relationships critically analysed based on the empirical findings and literature review to facilitate the idea of presenting the links between elements which enable to achieve the aim of this research.

### **7.4 Strategic Guidelines and A Framework for Enhancing the Success of the Performance of the Strategic UK Railway Alliances**

This section discusses critically the role and impact of the (*motivations, benefits, behavioural factors*) on the SRAs performance. Also, the rest sections present these relationships and the role of behavioural success factors in enhancing each indicator of the SRAs performance. The basis for creating these figures and relationships (barriers and indicative actions), which exist across the strategic guidelines, is related to the triangulation of research findings (data collected) and the reviewed theoretical literature along with the recommendations of the interviewees (experts), which have enhanced the capability of the researcher to

provide indicative actions to overcome the barriers that have emerged. In addition, the different colour (red colour) used in some cells in the figures and in the indicative action sections, represents amendments from the experts, that were identified during the validation stage (see Chapter 8). These amendments refer to the addition, removal or change of particular elements. Importantly, the drawing and connecting of arrows by the two sides of the entire figures provided are crucial. The main reference to these directions and connections indicates that there are mutual relationships and impacts between the elements, where the hierarchy of the barriers for instance in each figure from the beginning until the end, represents a (relations-tree).

## 7.4.1 Group 1: Barriers in Motivations for Creating Strategic Railway Alliances and Inductive Actions

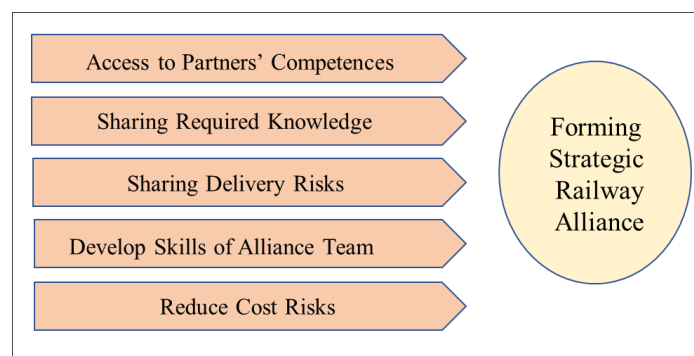
### 7.4.1.1 Preambles

Group 1 is a part of the framework shown in Figure 7-1, that shows the motivations for creating SAs, and the barriers identified at this stage. provides practical indicative actions related to each identified barrier. The purpose of this section is to recognise the main motivations for SAs and the actions that need to be considered for each motivation to enhance the process of alliance performance success.

The design of this framework specifically targets audiences from both SRAs, and strategic alliances in businesses generally. This part of the guideline should be read alongside the provided framework. The targeted readers are expected to understand the essential motivations for creating a SA and what plans should be followed to prevent the appearance of barriers.

### 7.4.1.2 Motivations for Strategic Alliances

The main motivations that have emerged from the primary data are listed below, with a brief description.



**Figure 7-1 Motivations for Strategic Alliances**

1. Access to Partners' Competencies: the competences include experience, fundamental skills and innovative ideas, that are required to achieve complicated tasks and plug in the competence gaps of other partners.
2. Sharing Required Knowledge: consists of capabilities, experience, and tacit or explicit knowledge, which are important for sustaining and developing the competitive skills of partners within the alliance.
3. Sharing Delivery Risks: involves sharing the signs of risks and problems which could occur during the delivery of an alliance project. It is based on established, trusting relationships and a collaborative environment.
4. Develop Skills of Alliance Team: the ability of partners to share their practical and mental skills to improve those of other partners, with the intent to overcome critical problems and discover crucial solutions for them.
5. Reduce Cost Risks: this includes the exchange of required technologies, along with tangible and intangible resources between alliance partners, that enhances opportunities for delivering the targeted project at the lowest costs possible.

### 7.4.1.3 Barriers and Indicative Actions for each Motivational Element of a Strategic Alliance

#### 7.4.1.3.1 Barriers to the Access of Partners' Competencies

The barriers to access of a partners' competencies are illustrated below, along with a brief description.

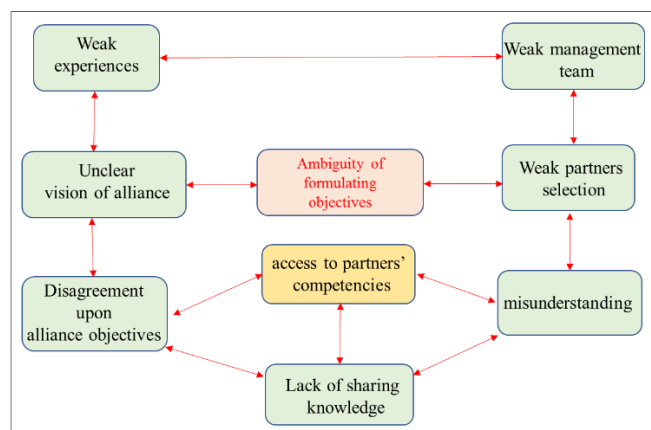


Figure 7-2 Barriers to the Access of Partners' Competencies

1. Access to a partners' competencies could face managerial difficulties owing to the weakness of the management team, which may be reflected as a weakness from previous experiences within alliances.

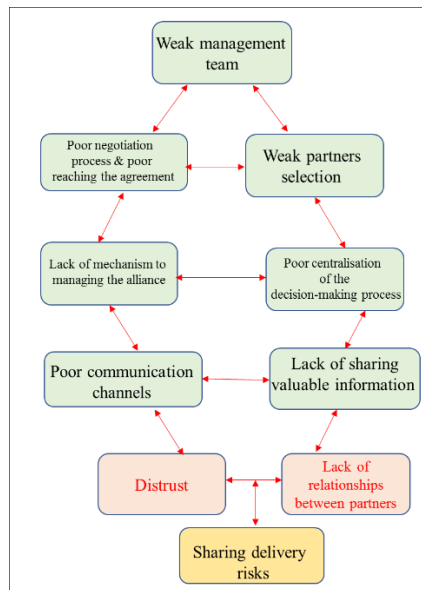
2. The weakness of the management team and their experiences could result in an inappropriate selection of partners, which could lead to **an ambiguous strategic vision and objectives** due to misunderstanding. This will become apparent within the decision-making meetings.
3. A misunderstanding among partners may lead to disagreement regarding the formulation of a strategic objective for the alliance.
4. Disagreement results in conflict and contradictions to the mechanisms of sharing information and knowledge, resulting in the difficulty of accessing partners' competencies.
5. The negative impact of missing knowledge and access to important competencies is distrust, conflict and the project finishing too early.

#### **7.4.1.3.2 Indicative Actions to Cope with the Barriers towards Access of Partner Competencies during the Formation of Strategic Alliances.**

1. Integrate managers of railway companies with highly experienced managers in alliancing from different companies to build developed capabilities.
2. Conduct several training sessions and workshops at different organisational levels to explain the strategic alliance concept and the benefits that can be gained from it.
3. Define the importance of the strategy and selection of the right partners to the management team and how it helps to accelerate alliance project delivery.
4. Encourage managers to develop and improve communication channels at all levels of the alliance, to benefit from sharing competencies and useful knowledge.
5. Establish a democratic environment, especially during the stage of creating a strategic alliance, where it enhances healthy discussion and improves the partners' understanding thus enabling objectives to be strongly linked to the strategic goal of the alliance.

#### **7.4.1.3.3 Barriers to Sharing Required Knowledge**

The barriers to sharing knowledge are illustrated below, along with a brief description.



**Figure 7-3 Barriers to Sharing Required Knowledge**

1. Weak alliance managers are the main antagonist for not sharing the required knowledge at the initial stages of alliance creation due to a lack of experience in conducting alliancing functions.
2. The poor quality of information supplied is related to mismanagement when dealing with risks and the accomplishment of a proper decision.
3. Not acquiring or deciding on the right decision is common due to poor communication channels around alliance borders.
4. Lack of exchanging information related to the process of alliance implementation, poor communication between alliance levels leads to poor relationships of partners and distrust.
5. The selection of inexperienced partners could result in disagreements and the concealment of knowledge or inadequate information.

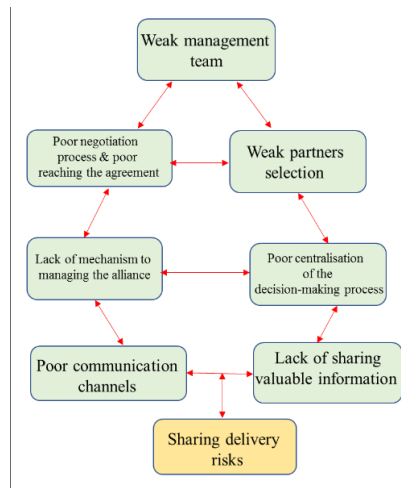
#### **7.4.1.3.4 Indicative Actions to Cope with the Barriers of Sharing Required Knowledge during the Formation of Strategic Alliances.**

6. Establish an institutional mechanism which provides essential information to the management team to aid accomplishment of the alliance work plans and strength relationships between partners and trust.
7. Develop the soul of the teamwork and spread the principles of a democratic environment, encouraging the discussion of alliance risks and suitable decisions to solve them.
8. Review the practical experience of partners to see whether they have been involved within collaborative strategies previously.

1. Enhance agreement upon objectives by offering opportunities to discuss opinions and share innovative ideas.

#### 7.4.1.3.5 Barriers to Sharing Delivery Risks

The barriers to sharing delivery risks are illustrated below, along with a brief description.



**Figure 7-4 Barriers to Sharing Delivery Risks**

1. Negotiation can be restricted between partners when considering appropriate decisions for delivery of an alliance project due to a lack the experience within the management team and the criteria for selection of partners.
2. A lack of centralisation in the decision-making process is often due to poor planning and no proper mechanism for managing alliance management.
3. Poor communication channels between alliance management levels disrupt or distort the sharing of information regarding risks that influence the alliance delivery.
4. Distrust and a lack of commitment between partners critically impacts the sharing of information related to the risks of alliance delivery.

#### 7.4.1.3.6 Indicative Actions to Overcome the Barriers to Sharing Delivery Risks during the Formation of Strategic Alliances

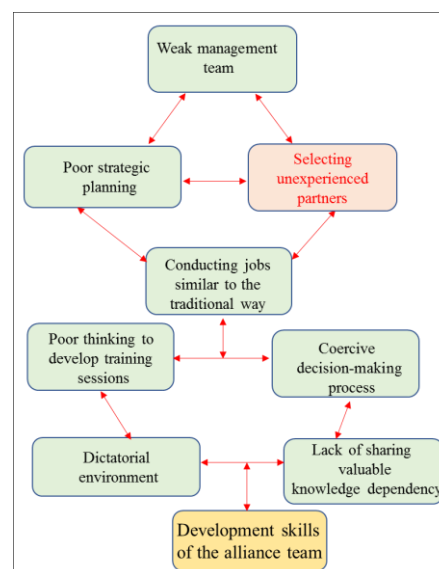
1. Concentrate on skill development of the management team through training and workshops that explain the importance of strategic alliance strategies and teach the essential criteria for selection of the targeted partners.
2. Establish a specialist unit to accumulate received and sent information on the challenges and competitive environment of the alliance.



3. Enhance the communication channels inside the alliance through the development of formal and informal communication channels between partners.
4. It should establish a unit or department occupied by high experienced participants responsible for distributing sensitive information between the alliance levels to avoid happening any problem during implementing the alliance project.
5. Enhance the principles of trust and commitment by seeking to determine the main objective for creating the alliance.

#### 7.4.1.3.7 Barriers Towards the Development of Alliance Team Skills

The barriers that affect the development and learning of alliance team skills are detailed below, along with a brief description.



**Figure 7-5 Barriers towards the Development of Alliance Team Skills**

1. Poor critical strategic thinking affects the planning of development for the required skills needed for delivery of the alliance.
2. Selecting inexperienced partners impacts the ability to develop participants skills.
3. If the work is conducted similarly to traditional organisational strategies this could impact the aim of the alliance strategy, which is to improve staff skills and experience.
4. Insufficient training sessions, especially at the initial stages, influences the capability of developing partner skills.
5. The use of coercive power during the decision-making process limits the opportunities to discuss opinions and share knowledge, which are required to develop skills.

#### 7.4.1.3.8 Indicative Actions to Overcome the Barriers to Sharing Delivery Risks during Formation of Strategic Alliances

1. Define a mechanism/s to develop the fundamentals of strategic thinking and strategic planning.
2. Consider the unhelpfulness of traditional strategies and learn lessons from their weaknesses for delivering an alliance programme safely.
3. Encourage both formal and informal situations, where participants can meet and share knowledge and understanding. Especially at the initial stages, when important skills and experience are needed to deliver alliance tasks.
4. Concentrate on the importance of a democratic environment inside the alliance, which facilitates the exchange of ideas and experiences and builds the roots of trust and commitment.
5. Place emphasis on the importance of a feedback mechanism to improve partners' skills.

#### 7.4.1.3.9 Barriers to Reduction of Cost Risks

The barriers to the reduction of cost risks are illustrated below, along with a brief description.

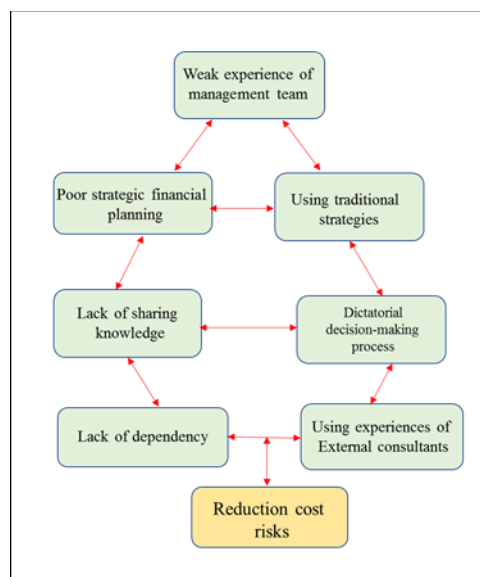


Figure 7-6 Barriers to the Reduction of Cost Risks

1. The continuous use of traditional financial strategies is not suitable for conducting strategic alliance tasks.
2. No evident feasibility study for the alliance project increases the costs of programme achievement.
3. Failure to share knowledge and discuss opinions democratically results in distrust and disharmony.

4. Insufficient dependency between the alliance parties leads to failure in sharing problem-solutions, which could result in the alliance clients using external experts.

#### **7.4.1.3.10 Indicative Actions to Cope with the Barriers to the Reduction of Cost Risks during the Formation of Strategic Alliances**

1. Form an alliance with experienced partners, who have previously engaged within an alliance strategy, to learn and adopt, developed financial strategies and deliver the project smoothly.
2. Enhance dependency norms between partners to build strong relations and avoid recruiting experienced consultants from outside.
3. Prepare an intensive feasibility study for the alliance project, in order to estimate the normal and hidden costs which can appear.
4. Spread the principles of a democratic climate and evaluate the decisions reached to enhance the capabilities of solution sharing related to increasing costs.

### **7.4.2 Group 2: Barriers Hinder Acquisition of the Benefits for Strategic Railway Alliances Creation and Their Inductive Actions**

#### **7.4.2.1 Preambles**

Group 2 is considered as a part of the framework illustrated in Figure 7-7 that outlines the main benefits acquired from creating strategic alliances, and the barriers identified at this stage. This section highlights practical indicative actions related to each identified barrier. Ultimately, recognising the main benefits that enhance the process of alliance success.

The design of this framework is targeted at audiences from both specific SRAs and strategic business alliances in general. This part of the guideline is expected to be read alongside the provided framework. The targeted readers are expected to understand the fundamental benefits of engagement within a SA and what plans should be followed to avoid barrier presence.

#### **7.4.2.2 Benefits of Strategic Alliances**

The main benefits that have emerged from the primary data are illustrated below, along with a brief description.



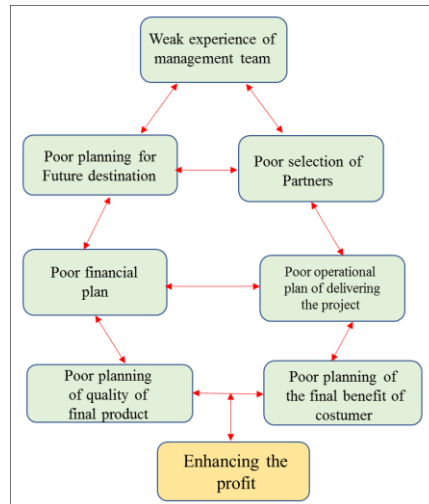
**Figure 7-7 Benefits of Strategic Alliances**

1. *Enhancing the Profit*: this indicates that incomes for each partner increases, which is important for the development of an organisational system for alliancing organisations and improving their market position for the creation of a huge opportunity for future work.
2. *Enhancing the Reputation*: this enhances the opportunity of working with highly experienced partners and acquiring critical knowledge and experience, which can be reflected practically on achievement and skills in order to gain future opportunities.
3. *Provision of Necessary Resources*: the power of partners enables the benefit of exchanging (tangible and intangible) required resources, which ensures safe delivery of the project with the lowest cost, as well as enhancing the capabilities of partners to develop a stock of practical abilities.
4. *Provision of Necessary Technology*: this enables partners to learn, keeping abreast of and obtaining highly developed technologies, including materials and skills which are considered essential for the smooth achievement of the alliance project. Whilst gaining a competitive advantage, which improves the reputation of the alliancing partners in the future.
5. *Enhancing Safety Abilities*: this entails of learning and acquiring the skills for designing and developing safety programmes for the alliance project and the partners' own programmes. It includes determination of the main safety instructions, use of the materials, and how to deal with problems during the task achievement and completion.
6. *Quick Response to the Problems*: skills acquisition from highly experienced partners related to the handling of initial signs of practical risks and how to deal with them. Whilst developing strategic thinking abilities to encounter proper and immediate solutions that address these gaps.

### 7.4.2.3 Barriers and Indicative Actions of each Benefit Element of Strategic Alliances

#### 7.4.2.3.1 Barriers to Enhancing the Profit

The barriers to enhancing profit are illustrated below, along with a brief description.



**Figure 7-8 Barriers to Enhancing Profit**

1. An unclear or ambiguous alliance destination and the unlikelihood of achieving profit are caused by management team weakness and the selection of inexperienced partners.
2. The proposal of financial plans without consideration of the competitive environmental threats, negatively influences the level of profits.
3. The establishment of inaccurate plans within an operational level, without determination of the resources required to deliver the project could be costly and decrease the percentage of profit for each party involved.
4. Non-determination of quality for the final product and provision of an inaccurate number of benefits added for the customers, could negatively contribute to a decrease in the targeted profits.

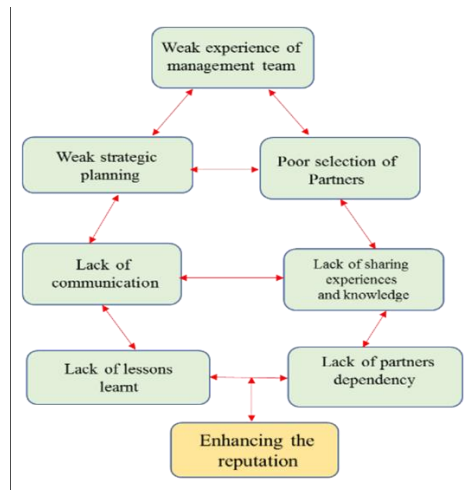
#### 7.4.2.3.2 Indicative Actions to Cope with the Barriers to Enhancing Profit of the Strategic Alliances

1. Confirm the future destination of the alliance project and its required strategic intent and fulfilments.
2. Monitor the competitive environment and determine proper financial plans, which can cope with negative changes.
3. Define an evident plan at operational level, that determines the number of resources required to produce the final product at the lowest cost and highest profit.

- Place emphasis on the provision of benefits for the final customer by improving the structure of product quality, which can be reflected positively at profit level.

#### 7.4.2.3.3 Barriers to Enhancement of Reputation

The barriers to enhancing reputation are listed below, along with a brief description.



**Figure 7-9 Barriers to Enhancing Reputation**

- Failure of the management team to set strategic plans that develop the reputation due to inexperience and the selection of naive partners.
- Poor mutual communication resulting in insufficient sharing of experiences and knowledge, which are needed to develop a reputation for alliancing companies.
- Partners who are reticent and do not share experiences and knowledge within the alliance boundaries, which increases distrust and a lack of dependency.
- A lack of desire to share experiences, along with uncommunicative partners results in a reduced level of dependency.

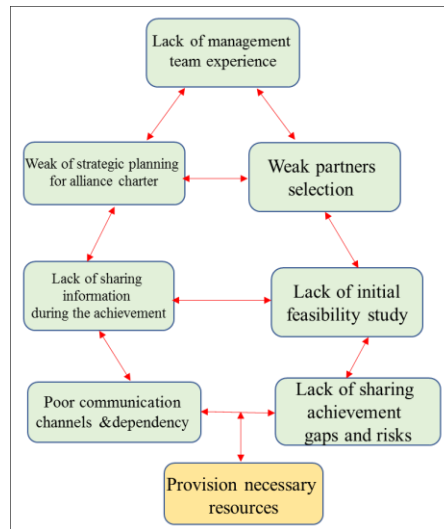
#### 7.4.2.3.4 Indicative Actions to Cope with the Barriers to Enhancing the Reputation of the Strategic Alliances

- The development of management team experiences and skills through continuous training and workshops.
- The demolition of traditional hierarchy at all alliance function levels, to facilitate mutual communication and the transference of required knowledge.
- Development of the concept of dependency between partners to facilitate and establish the principles of trust and commitment.

8. Encourage the motivation of a developed mechanism for learning lessons by guiding partners to share their experiences smoothly within the alliance levels.

#### 7.4.2.3.5 Barriers to the Provision of Necessary Resources

The barriers to the provision of necessary resources are described below, along with a brief description.



**Figure 7-10 Barriers to the Provision of Necessary Resources**

1. Weakness at preparing the alliance charter and determination of the essential resources occur due to management inexperience and failure in selection of the appropriate partners.
2. Failure to conduct a feasibility study could lead to incurred costs when providing the required resources.
3. Insufficient sharing of information and poor mutual communication could result in the failure to identify and share risky gaps during the achievement stage.

#### 7.4.2.3.6 Indicative Actions to Cope with the Barriers to Provision of Necessary Resources for Strategic Alliances

1. Careful study of the steps for preparation of a SA charter, that identifies the partners' rights and determines the important resources required to deliver the project.
2. Concentrate on conducting a feasibility study at the beginning to accurately understand the essential resources needed to deliver the alliance project and determine the costs.
3. Focus on the importance of training sessions and regular workshops particularly in the initial stage of alliance creation.
4. Develop a sensitive mechanism to manage communication between the alliance levels that signals or identifies the signs of risks, which could occur during the achievement procedures.

#### 7.4.2.3.7 Barriers of the Provision for Necessary Technology

The barriers to the provision of necessary technology are illustrated below, along with a brief description.

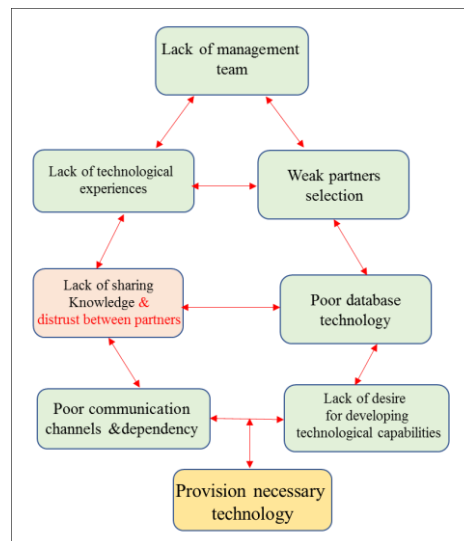


Figure 7-11 Barriers of Provision to Necessary Technology

1. Partners who are committed to the traditional methods and do not have any desire to develop technological experience or expertise to deliver an alliance project, are weak management teams and could choose inappropriate partners.
2. The use of a poor database for saving internal and external information.
3. Insufficient technologically developed communication channels for sharing accurate information.
4. Distrust between partners is a major barrier for exchanging developed technologies.

#### 7.4.2.3.8 Indicative Actions to Cope with the Barriers for Provision of Necessary Technology for SAs

1. Motivate the participants to develop their technological capabilities and skills by attending workshops and conducting training sessions.
2. Define the importance of using developed technological methods in managing alliance tasks as being a competitive advantage.
3. Learning technological advancements helps to increase the reputation of alliancing organisations.
4. Develop communication channels to accelerate the transference of critical information and facilitate solutions to risks and problems that could occur.
5. Follow technological developments and create an improved database, which can signal changes in the competitive environment.



6. Work on enhancing the roots of trust and facilitate the continual sharing of technologies and knowledge.

#### 7.4.2.3.9 Barriers to the Enhancement of Safety Abilities

The barriers to the enhancement of safety abilities are detailed below, along with a brief description.

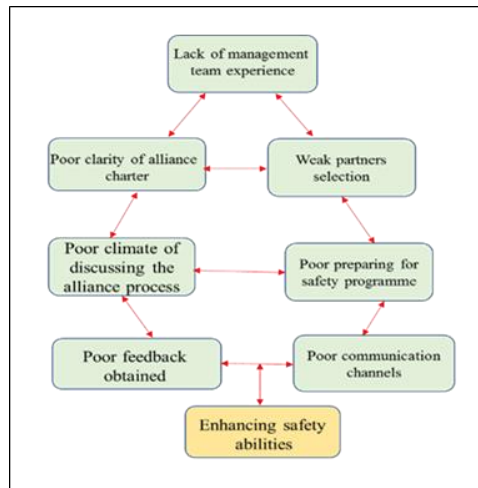


Figure 7-12 Barriers to Enhancing Safety Abilities

1. An unclear alliance charter map could result in a lack of experience at management level and an unqualified strategy for selection of target partners.
2. The use of an inappropriate safety programme is a reason for ambiguous alliance charter details.
3. Using an unsuitable environment to discuss the alliance process could impact on the explanation and understanding of the targeted points needed to prepare a proper safety programme.
4. A lack of improved communication channels influences the ability to gain feedback related to the development of safety capabilities for the partners.

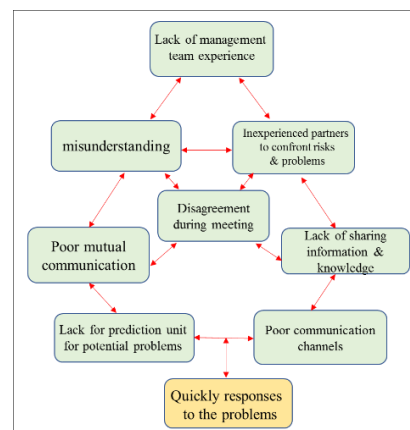
#### 7.4.2.3.10 Indicative Actions to Overcome the Barriers to Enhancement of the Safety Technology of Strategic Alliances

1. Develop the skills and capabilities of the managers through alliances with well-known and high-ranking partners.
2. Determine the steps, objectives and tasks of conducting a strategic alliance process, to ensure the charter is accurate and achievable.
3. Run workshops with successful alliances to enhance understanding of the essential steps needed to improve the safety programme.

4. Listen and create a friendly working environment, where it is possible to transfer opinions and ideas smoothly at all levels of the alliance, encouraging participation in the improvement of the principles of the safety programme.
5. Concentration on the importance of preparing a proper safety programme particularly during conducting alliance charter formulation based on a variety of partners experiences.
6. Develop communication channels between all levels of the alliance, that facilitate the important transference of ideas and suggestions for successful delivery of the project.

#### 7.4.2.3.11 Barriers to Quick Responses to Problems

The barriers to the achievement of quick responses to problems are shown below, along with a brief description.



**Figure 7-13 Barriers to Quick Responses to Problems**

1. An inexperienced alliance management team is related to stalling or exasperating problems, as is poor selection of the right partners.
2. Misunderstanding between partners due to inexperience in confronting problems.
3. Disagreement arising during decision-making meetings due to inexperience of finding solutions for problems.
4. Difficulty achieving agreement or solutions due to poor information mechanisms and communication channels.
5. No prediction unit resulting in the possibility of any or various issues arising without notice.

#### **7.4.2.3.12 Indicative Actions to Overcome the Barriers to Quick Responses to Problems in Strategic Alliances**

1. Train alliance management members by including intensive workshops that adapt real critical achievement problem cases and recording their reactions.
2. Consider several opinions from partners and recognise their views regarding solutions via a democratic environment.
3. Establish a prediction unit of problems to facilitate the investigation of the initial signs of problems before they occur.
4. Activate the mechanism of problem-solving and allocate it to qualified, experienced members, who are capable of providing suitable solutions.
5. Place emphasis on the development of the principles for sharing information and knowledge and highlight the importance of developing effective and efficient communication channels, which are required to deliver the alliance project

### **7.4.3 Group 3: Barriers in the Behavioural Success Factors of Strategic Railway Alliances and Their Inductive Actions**

#### **7.4.3.1 Preambles**

Group 3 is an essential part of the framework demonstrated in Figure 2-, as it illustrates the behavioural success factors of strategic alliances and the barriers identified at this stage. It also supplies practical indicative actions, that are related to each identified barrier. The purpose of this section is to recognise the main behavioural success factors in SRAs and the actions that need to be considered for each factor, to enhance the process of alliance success.

The design of this framework specifically targets audiences from both SRAs, and strategic alliances in businesses generally. This part of the guideline should be read alongside the provided framework. The targeted readers are expected to understand the essential motivations for creating a SA and what plans should be followed to prevent the appearance of barriers.

#### **7.4.3.2 Behavioural Success Factors of Strategic Alliances**

The main behavioural success factors that have emerged from both the primary and secondary data are grouped below.

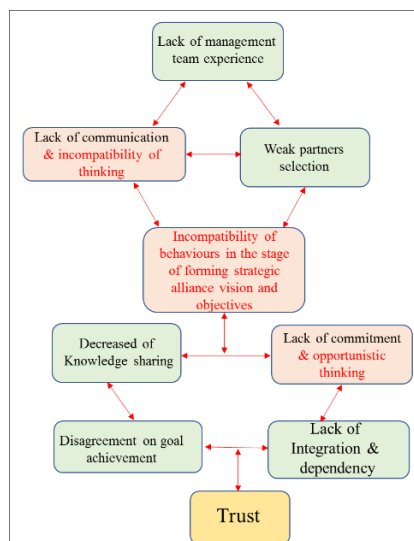


**Figure 7-14 Behavioural Success Factors of Strategic Construction Alliances**

### 7.4.3.3 Barriers and Indicative Actions for each Behavioural Success Factor of Strategic Alliances

#### 7.4.3.3.1 Barriers to Trust

The barriers to trust are illustrated below, along with a brief description.



**Figure 7-15 Barriers to Building Trust**

1. An inexperienced alliance management team and poorly selected partners could result in a breakdown of communication channels and incompatibility of thinking, which is considered important to build trust.

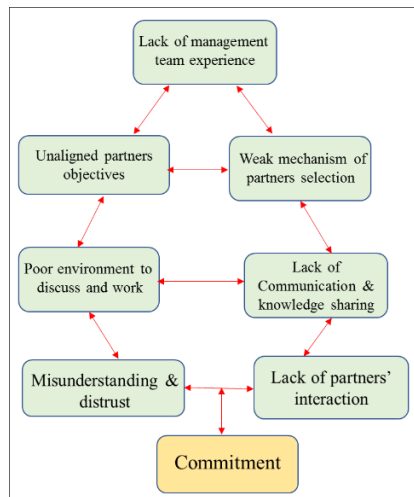
2. Incompatibility of behaviours in the stage of forming strategic alliance vision and objectives one of the main reasons for distrust between partners.
3. Poor communication between partners and opportunistic thinking increases negative sensitivity, which could impact on the sharing of knowledge and the building of commitment and trust.
4. Disagreement amongst partners regarding a common alliance goal, is the main barrier to building trust.
5. The monitoring of partner behaviour could lead to insufficient team integration and a lack of mutual dependency, resulting in distrust and conflict.

#### **7.4.3.3.2 Indicative Actions to Overcome the Barriers to Building Trust in Strategic Alliances**

1. Place emphasis on developing the mental skills of the management team through the engagement of highly experienced partners and the running of effective workshops.
2. Improve the exchange of information inside the alliance through the establishment of formal and informal communication channels, that are represented by meetings, lunch times and appropriate activities.
3. Reduce sensitive tension between partners by listening to the opinions of others and exchanging information, which is essential at the stage of building trust.
4. Pay attention and be aware of partners' cultural backgrounds, whilst working to establish and encourage teamwork principles.
5. Improve the mechanism of sharing knowledge between alliance parties and champion transparency.

#### **7.4.3.3.3 Barriers to Commitment**

The barriers to commitment are detailed below, along with a brief explanation.



**Figure 7-16 Barriers to Building Commitment**

1. Unaligned partners' objectives could be caused by an inexperienced management team and /or the selection of unqualified partners, which could result in a lack of commitment.
2. The establishment of a dictatorial environment for making decisions could negatively impact on trust and commitment.
3. Distrust reduces the effectiveness of communication and knowledge sharing, which impacts negatively on commitment to the alliance charter.
4. Misunderstanding of the alliance goal and its procedures and requirements may lead to distrust and insufficient commitment or indifference.
5. Poor exchange of experiences and inactive behavioural interaction among partners may detrimentally affect commitment.

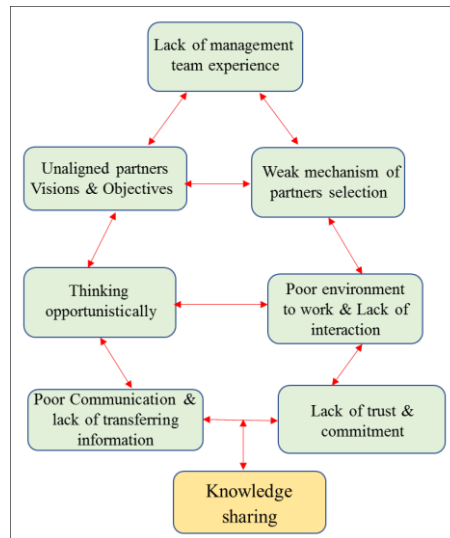
#### **7.4.3.3.4 Indicative Actions to Overcome the Barriers to Building Commitment in Strategic Alliances**

1. Establish focused workshops before the creation stage of the alliance, to discuss and ensure that the objectives of the partners are compatible and encourage the sharing of experiences and skills.
2. Create a democratic environment to facilitate the exchange of ideas and opinions from all levels of the alliance.
3. Concentrate on the role of effective communication between alliance members as it helps to improve the understanding and purpose of creating the alliance, whilst strengthening the roots of trust and commitment.
4. Regular formal and informal meetings are important to enhance the understanding of alliance perspectives and the tasks required.

- Place emphasis on conducting workshops and plan suitable formal / informal activities and sessions, which encourage partners to interact and assimilate key information.

#### 7.4.3.3.5 Barriers to Knowledge Sharing

The barriers to knowledge sharing are illustrated below, along with a brief description.



**Figure 7-17 Barriers to Knowledge Sharing**

- Inexperienced managers and inappropriate partners hinder the sharing of required knowledge.
- Incompatible visions and objectives generate distrust and a lack of commitment, which impacts knowledge sharing.
- Similarities in the specialisations of alliancing companies could generate opportunistic thinking and competition.
- Ambiguous intentions and opposing agendas reduce the desire to share knowledge, which indicates self-interest.
- Tension within relationships and an overreliance of the traditional way of making decisions, could impact negatively on the exchange of experience, ideas and knowledge.
- Poor communication between partners results in misunderstanding of the alliance process and provokes fear, which decreases the sharing of tacit and explicit knowledge.

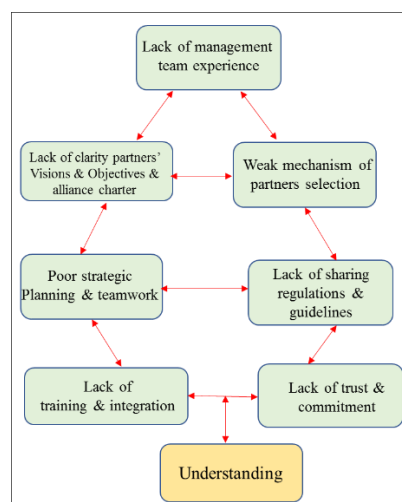
#### 7.4.3.3.6 Indicative Actions to Overcome the Barriers to Knowledge Sharing in Strategic Alliances

- Develop strategic thinking and decision-making strategies for managers through the continuous improvement of mechanisms and contributions within specialised workshops.

2. Consolidate targeted partners' visions and objectives to understand their aim for entering a strategic alliance strategy and ensure its achievable.
3. Target companies with different specialisations to prevent the risk of opportunistic behaviour and facilitate knowledge sharing.
4. Review and monitor partners' agendas and follow their progress of achievement in the alliance procedures to avoid opportunism.
5. Focus on sharing explicit knowledge not tacit knowledge between partners which is important for delivering the alliance project, because tacit knowledge considers personal ownership.
6. Exploit developed strategies and mechanisms to manage relationships and allow others to share opinions.
7. Improve communication tools and encourage the participants to continually communicate and interact, to facilitate understanding of the alliance process.

#### 7.4.3.3.7 Barriers to Understanding the Alliance Objectives

The barriers to building partners' understanding are shown below, along with a brief description.



**Figure 7-18 Barriers to Building Understanding of Alliance Objectives**

1. Poor management of SA resulting in an unsatisfactory mechanism for the selection of partners.
2. Incompatible experiences and capabilities of partners, which causes an ambiguous vision of the alliance, an unstable alliance charter and unaligned partners' objectives resulting in misunderstanding of the alliance process.
3. Weak strategic planning regarding the future of the alliance is a negative indicator, that increases misunderstanding and weakens interaction between members.



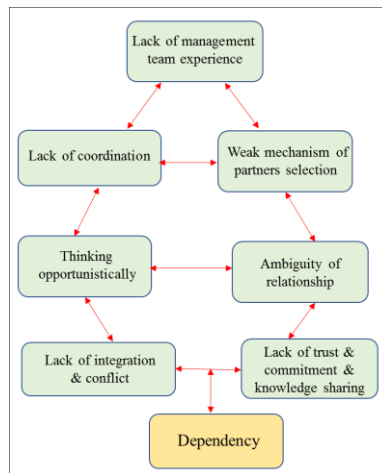
4. Insufficient setting of appropriate regulations and guidelines creates vague alliance functions and generates partners' misunderstanding.
5. Inadequate training, especially during the initial stages of alliance creation, plays a massive role in creating an unintegrated team resulting in misunderstanding.
6. Distrust and a lack of commitment lead to misunderstanding.

#### **7.4.3.3.8 Indicative Actions to Overcome the Barriers of Partners' Understanding in Strategic Alliances**

1. Select management members and partners with valid and sufficient experience of collaboration strategies.
2. Integrate partners' perceptions, visions and objectives within a common aim, which can reflect and enhance understanding positively.
3. Pay careful attention to the alliance's future and possible environmental changes, which are important when setting proper guidelines and ensuring the participants are an integrated team.
4. Focus on getting all partners agreement regarding the principles which are mentioned in the alliance charter.
5. Clear regulations and function guidelines are essential at the first stage of alliance creation, to avoid recurrences of misunderstanding.
6. Highlight the importance of continuous training to develop understanding and awareness of the partners in the alliance process
7. Build a foundation of trust, which encourages commitment and facilitates understanding of the alliance procedures.

#### **7.4.3.3.9 Barriers to Mutual Dependency**

The barriers to mutual dependency are listed below, along with a brief description.



**Figure 7-19 Barriers to Building Mutual Dependency between Partners**

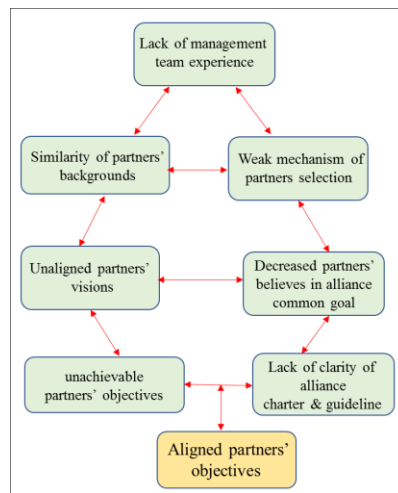
1. Insufficient coordination and mutual dependency are an indicator of an inexperienced management team and selected partners.
2. Opportunistic thinking displayed by partners demonstrates unwillingness to share dependency.
3. An ambiguous agenda and conflicting behaviours block suitable mutual dependency principles.
4. Tension during the decision-making processes leads to poor integration of the alliance team and a reduction in mutual dependency.
5. A lack of integration and knowledge sharing will result in distrust, weak foundations and insufficient commitment, which impacts negatively on mutual dependency between partners.

#### **7.4.3.3.10 Indicative Actions to Overcome the Barriers to Mutual Dependency in Strategic Alliances**

1. Place emphasis on building strong principles for alliance relationships, which enhance the foundations for improving cooperation and coordination between the management team and partners.
2. Regular monitoring of partner' behaviours, especially during important meetings, will indicate whether the thinking is opportunistic, and experiences are being shared as required.
3. Commit all partners to discuss their aims and objectives within the alliance creation stage, this is essential for transparency and helps to avoid unpredictability.
4. Encourage cooperation during decision-making to champion participation and create co-dependency.
5. Create a friendly atmosphere inside the alliance, where trust and commitment are built, and a frequent loop of reliable relationships are achieved.

#### 7.4.3.3.11 Barriers to Aligned Partners' Objectives

The barriers to alignment of partners' objectives are detailed below, along with a brief description.



**Figure 7-20 Barriers to Achieving Alignment of Partners' Objectives**

1. The weakness of managers and unsuitable partners act as negative determinants for alignment and the accomplishment of alliance objectives.
2. Partner similarities are often frustrating when conducting an alliance project due to originally being competitors with the same agenda and goals, thus opportunistic thinking becomes apparent.
3. The incompatibility of visions is a strong indication for disagreement on formulation of the objectives at the next stage.
4. Ambiguous visions generate unachievable objectives.
5. Disbelief or mistrust of the strategic alliance will frustrate the design of achievable objectives and result in failure.
6. Poor design of the alliance charter hinders the capability to design compatible objectives.

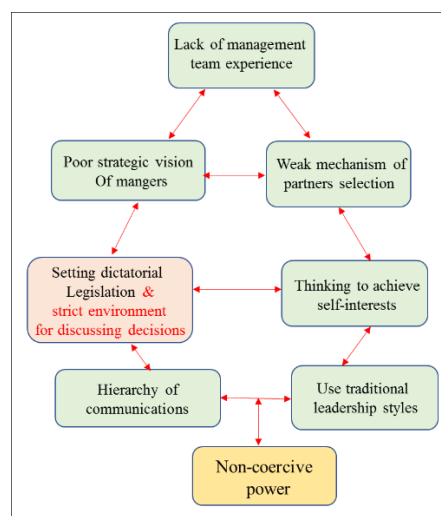
#### 7.4.3.3.12 Indicative Actions to Overcome the Barriers to Aligned Partners' Objectives in Strategic Alliances

1. Motivate the organisation's managers to adopt developed strategies, that consider environmental changes and facilitate the design of objectives based on the current situation.
2. Seek an alliance with partners who have different specialisation backgrounds, to avoid risks of opportunism and conflict during alliance goal setting.
3. Be aware of all the visions inside the alliance and seek to integrate them in a common vision, which encompasses all of the partners' perceptions.

4. Aggregate partners from a variety of backgrounds help to create proper supply chain inside the alliance without any need of support from external suppliers.
5. Listen to all the achievable targets and plans of the partners, allowing the design of achievable objectives.
6. Accurately study the design of the alliance charter, even if they are easy to understand and focus on including all partners' viewpoints.

#### 7.4.3.3.13 Barriers to Application of Non-Coercive Power (Democratic Power)

The barriers to application of non-coercive power are illustrated below, along with a brief description.



**Figure 7-21 Barriers to Non-Coercive Power within a Strategic Alliance**

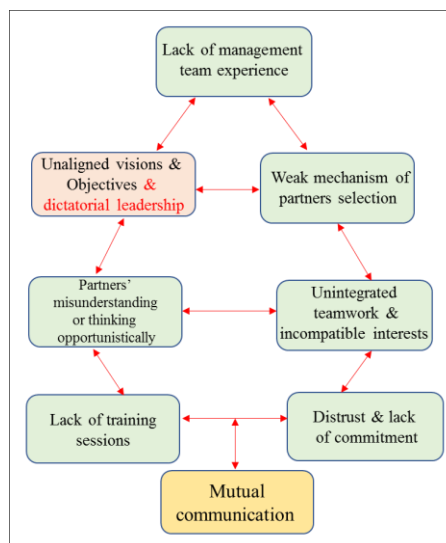
1. Poor brainstorming sessions when formulating a proper strategic vision for the alliance, without considering the opinions of others, points towards a lack of management team experience and inefficient partner selection, which uses a coercive traditional style of power during the establishment of the initial stages.
2. The setting of legislation, authorities and the alliance charter without discussion with partners is a negative sign for application of a democratic leadership style.
3. Self-interest and the achievement of individual goals without considering those of the other partners, will affect the adoption of a democratic leadership style.
4. The use of a hierarchical style of communication and the imposition of dictatorial orders negatively impacts on the integration of an alliance team and its success.

#### 7.4.3.3.14 Indicative Actions to Overcome the Barriers to Applying Non-Coercive Power in Strategic Alliances

1. Share visions and opinions to obtain a clear picture regarding strategic visions for the alliance within a democratic atmosphere.
2. Determine alliance legislation and regulations based on cooperative and integrative plans, which serve all partners' interests.
3. Motivate partners to discuss goals during workshops that have a democratic and collegiate atmosphere and monitor their behaviours and interests to avoid the risk of opportunism.
4. Use formal and informal communication channels within a democratic environment and motivate the participants to engage and collaborate in informal meetings, visits, and lunches, all considered valuable places to share knowledge and experiences.

#### 7.4.3.3.15 Barriers to Effective Mutual Communication

The barriers to effective mutual communication are grouped below, along with a brief description.



**Figure 7-22 Barriers to Effective Mutual Communication**

1. An inexperienced management team affects the capability to produce efficient communication channels to select appropriate partners.
2. Incompatible partner visions and objectives negatively impact on the development of fundamental communication channels.
3. Adopting a dictatorial leadership style impact the ability to exchange communication between the alliance levels properly.
4. Incompatible interests hinder the integration and communication of partners.

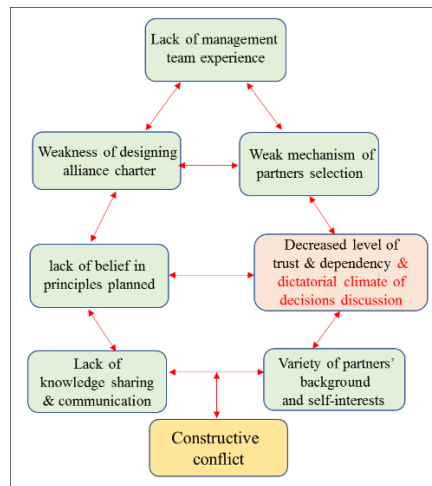
5. Misunderstanding of guidelines acts as a negative indicator for mutual communication among alliance levels.
6. Opportunistic behaviour of partners results in unwillingness to communicate with others.
7. Insufficient training sessions hampers the development of skills for partners and reduces the efficiency communication.
8. An inadequate database designed especially for the alliance will impact detrimentally on communication and alliance success.
9. A lack of trust affects the building of commitment and impedes the development of improved communication channels.

#### **7.4.3.3.16 Indicative Actions to Overcome the Barriers to Mutual Communication in Strategic Alliances**

10. Encourage managers to engage and participate in frequent workshops and sessions, to learn and gain ideas regarding ways of developing communication channels inside the organisations and alliances.
11. Strengthen communication especially during the creation stage of the alliance because it is important to align partner's visions and objectives.
12. Develop and facilitate communication to enhance knowledge and understanding of partners and what they are seeking to achieve through the alliance strategy.
13. Share alliance guidelines through developed communication channels and provide opportunities to discuss them using the same media, which will enhance understanding of the alliance process.
14. Develop communication between partners through transparency of partners' willingness to share their experience or not, using a unified interface and database.
15. Place emphasis on the role of training sessions, as they are important to improve communication between alliance participants.
16. The development of communication techniques is an essential strategy to build trust and commitment to the alliance charter and partners.

#### **7.4.3.3.17 Barriers to Successful Constructive Conflict**

The barriers to successful constructive conflict are detailed below, along with a brief description.



**Figure 7-23 Barriers to Building Constructive Conflict**

1. Lack of management experience to deal with the mechanism for selection of the right partners, resulting in ineffective constructive conflict when deciding on the stages for alliance success.
2. Construction of the alliance charter without consideration of partners' interests will impact on achieving constructive conflict.
3. Insufficient levels of trust, commitment, dependency and adopting a dictatorial leadership style negatively reflect on the achievement of effective constructive conflict.
4. Disbelief in alliance partners regarding established rules, authorities and regulations will determine the capability of partners to be constructively conflicting.
5. Ignoring or not acknowledging the diversity of backgrounds and self-interests within a common alliance aim is a negative barrier to the establishment of constructive conflict among partners.
6. Failure to unify partners as one team will affect the facilitation of communication between alliance levels and contribute to ineffective knowledge sharing.

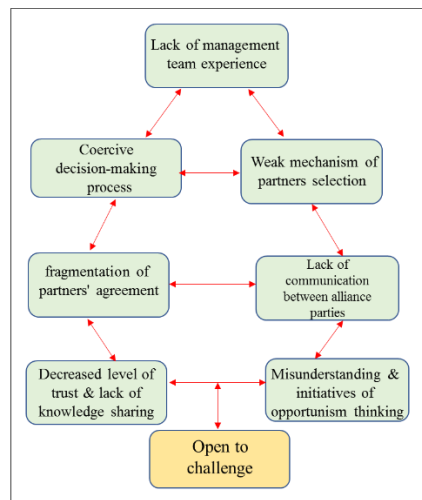
#### **7.4.3.3.18 Indicative Actions to Cope with Barriers to Constructive Conflict in Strategic Alliances**

1. Encourage management to participate in strategic thinking and problem-solving sessions to ensure awareness of the learning principles of critical thinking, brainstorming ideas and the building of skills for constructive conflict with others.
2. Develop a successful charter by selecting experienced partners and encourage their capabilities and ideas to conflict constructively.
3. Ensure all views and opinions are evident and not ambiguous, this will result in trust between partners and dependency, which improves the abilities of partners to discuss decisions constructively.

4. Concentrate on unifying beliefs and interests towards achieving the alliance goal by listening to all of the partners' objectives, to facilitate constructive discussion of the requirements for the accomplishment and success of the project.
5. Ensure communication channels are effective between alliance levels, to transfer information and knowledge smoothly and discuss it constructively in a democratic environment.

#### 7.4.3.3.19 Barriers to the Success of Being Openness to Challenge

The barriers to the success of being open to challenge are detailed below, along with a brief description.



**Figure 7-24 Barriers to Being Openness to Challenge**

1. Traditional thinking stems from insufficient experience of working within collaboration strategies, resulting in poor mechanisms for the selection of the right partners and poor methods for discussing alliance achievement criteria.
2. Dealing with problems individually without involving other partners in the decision process impacts on the mechanism for challenging ideas positively.
3. The use of coercive power in the decision-making process and mis or non-communication of partners' opinions, can frustrate efforts to construct a mechanism for challenging opinions positively.
4. Forcing partners to accept coercive decisions leads to fragmentation of alliance participants and a loss of communication channels whilst reducing knowledge sharing, all of which impact negatively on the level of trust and willingness to challenge opinions properly.
5. The presence of misunderstanding and a lack of capability to discuss opinions will detrimentally impact on the challenging of opinions positively.



6. A growth in opportunistic behaviour and self-interest, will inhibit willingness to build positive challenging of opinions.

#### 7.4.3.3.20 Indicative Actions to Cope with the Barriers to Being Openness to Challenging Partners' Opinions in Strategic Alliances

1. Encourage managers to apply listening strategies and be open to the opinions of other partners, whilst challenging them positively to achieve a consensus for strategic alliance.
2. Highlight the necessity for reaching decisions consensually and spread the attributes of a democratic environment.
3. Place emphasis on the role of communication between partners to enhance the capabilities for challenging opinions positively, by sharing required information related to the progress of an alliance project.
4. Stress the importance of formulating alliance principles and goals clearly to facilitate understanding.
5. Give freedom to partners to monitor behaviours simultaneously and understand the targets aimed at improving the conditions of the alliance or those that are individual interests.

#### 7.4.3.3.21 Barriers to Training

The barriers to building effective training are detailed below, along with a brief description.

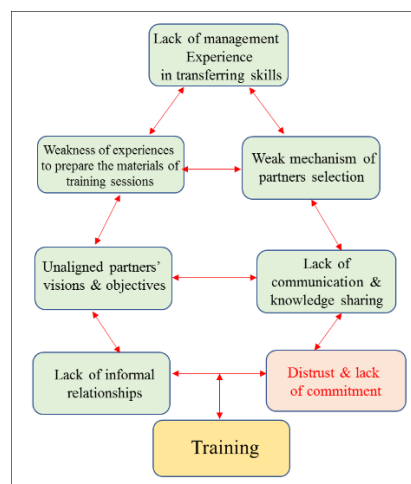


Figure 7-25 Barriers to Building Effective Training

1. An inexperienced management team may disregard the importance of formal and informal training, this could increase the gaps for sharing skills inside the alliance.

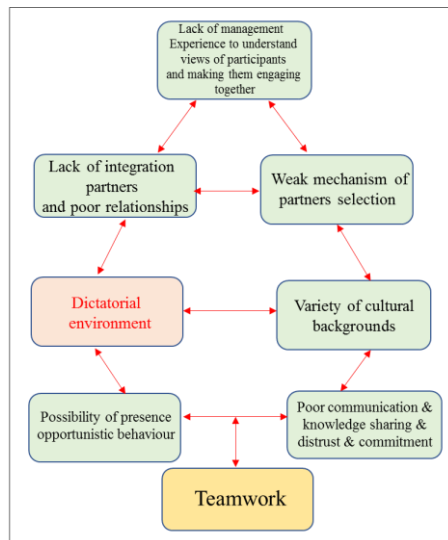
2. A weak management team could result in the selection of inexperienced partners, who are unable to provide the required skills and experiences.
3. An inexperienced management team may not have the skills to run efficient training sessions and prepare materials for training workshops.
4. Misunderstanding and ambiguous visions and objectives of the alliance could affect determination of the appropriate training sessions required to deliver alliance tasks.
5. Poor formal and informal communication inside the alliance could impact on the capability to share experience and skills between alliance participants.
6. Disconnected relationships between partners affects capability to share required knowledge.
7. **The distrust and lack of commitment will hinder willingness to distribute skills and experiences and hold training sessions.**

#### **7.4.3.3.22 Indicative Actions to Overcome the Barriers to Training in Strategic Alliances**

1. Instruct the alliance management team in the importance of holding training events such as workshops and sessions, whilst encouraging unscheduled daily meetings which are considered as informal training.
2. Develop the skills and strategies required for selection of the right partners, which can reflect on the development of participants' skills through the sharing of experiences.
3. Engage managers with highly experienced partners, who can explain or suggest important materials for developing training sessions and increasing the skills of the participants.
4. Set achievable visions and objectives, as clarity enables recognition of the requirements of training sessions.
5. Develop a mechanism for communication and concentrate on the improvement of formal communication; namely formal meetings, emails and workshops, as well as informal communication such as lunches, informal visits and face to face communication.
6. Strengthen partner relationships by linking their objectives to the common goal of the alliance, which will facilitate the smooth transference of skills and experiences and enhance understanding for the alliance principles deeply.
7. **Hold continuous formal and informal communication and training to help recognition and build a basis for trust and commitment.**

#### **7.4.3.3.23 Barriers to Building Teamwork**

The barriers to building teamwork are presented below, along with a brief description.



**Figure 7-26 Barriers to Building Teamwork**

1. An inexperienced management team cannot use developed strategies for gathering participants within one organisational system as one team.
2. The selection of inexperienced partners to work in collaboration will impact negatively on the possibility of successful cooperative teamwork.
3. Insufficient experience of the management team and their partners leads to weak integration and relationships.
4. The use of coercive power to decide the future of the alliance inhibits the ambitions of working collaboratively.
5. Diverse backgrounds and an inability to deal with cultural differences will negatively affect teamwork.
6. Partners who have opportunistic ambitions prefer not to engage within one team and share knowledge.
7. Poor communication channels, distrust and a lack of commitment will all hinder collaboration and teamwork.

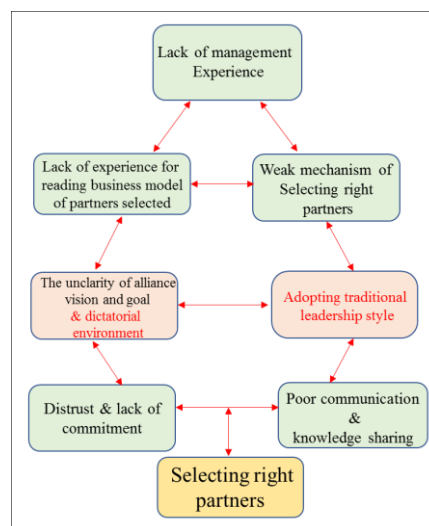
#### **7.4.3.3.24 Indicative Actions to Overcome the Barriers to Building Teamwork in Strategic Alliances**

1. Run training courses for management teams that focus on development and strategies, which will result in participants being integrated and cooperative.
2. Select partners who have previously worked within cooperative strategies.
3. Build relationships between partners by encouraging formal and informal communication and interaction.

4. Encourage fulfilment of alliance work through non-coercive power and develop a democratic climate inside the alliance, which motivates cooperation between partners.
5. Pay attention to all cultural backgrounds and base the alliance goal on the visions and objectives of partners, which enhances the principles of teamwork.
6. Encourage partners to work collaboratively, which aids understanding of behaviours.
7. Concentrate on effective communication between partners, which helps to build the roots of trust and commitment and encourages partners to act as one team.

#### 7.4.3.3.25 Barriers to the Selection of the Right Partners

The barriers to the selection of the right partners are shown below, along with a brief description.



**Figure 7-27 Barriers to Selection of Right Partners**

1. Inexperienced management leads to poor mechanism design for selection of the right partners.
2. Failure to read business models related to targeted partners is one of the reasons for the selection of inappropriate partners.
3. Establishment of an unclear vision and unachievable planned goal will not attract the required partner features.
4. Starting an alliance project without reviewing the background of targeted partners leads to inappropriate choices.
5. A **dictatorial alliance environment** creates tension and misunderstanding related to the selection of partners and the reasons why they have been chosen.
6. **Insufficient experience lacks the healthy climate of discussion and following traditional coercive leadership style could lead to the selection of partners who have not any experience regarding the strategic alliance strategy.**

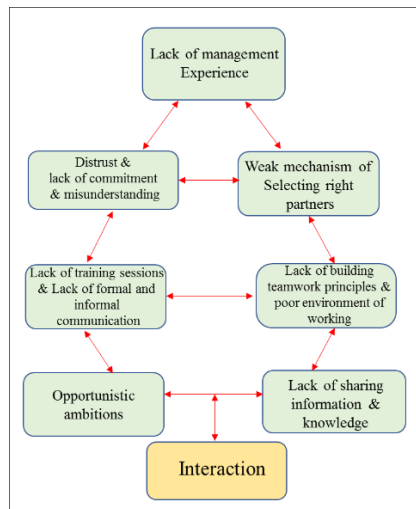
7. Poor communication and insufficient sharing of information and knowledge regarding the activities of targeted partners and their backgrounds, are one of the reasons for selection of unsuitable partners.
8. Misunderstanding at management level and inadequate sharing of required information leads to distrust and non-commitment, which affects determination of the right partners required to achieve alliance success.

#### **7.4.3.3.26 Indicative Actions to Overcome the Barriers for Selection of the Right Partners in Strategic Alliances**

1. Develop managers abilities to recognise the important features for selection of the right partners such as reputation, experiences, competencies, and assets.
2. Determine a clear and studied mechanism for selection of the right partners, which enables a review of targeted partners' business models and their backgrounds.
3. Design an achievable vision and goal for the alliance, where based on clarity it can determine appropriate partners.
4. Adopting principles of interactive leadership style helps to create a positive and collegiate alliance environment, specifically within the decision-making process to facilitate discussions, selection of the right partners and requirements.
5. A democratic climate can recognise clearly positive behaviours and ambiguous ones.
6. Develop communication channels to facilitate the transference of information and knowledge regarding the required features for selecting partners.
7. Establish the alliance charter properly as it helps to improve the level of understanding and enhances trusted relationships and commitment, which can be reflected in determining the shape of suitable partners.

#### **7.4.3.3.27 Barriers to Building Partners' Interaction**

The barriers to building partner interaction are listed below, along with a brief description.



**Figure 7-28 Barriers to Building Partners' Interaction**

1. Insufficient management experience affects the strategy for gathering partners and interaction.
2. Failure to select the right experienced partners within the collaboration strategy negatively affects the goal of achieving interaction.
3. The presence of distrust creates a lack of commitment for alliance principles, which results in poor or weak interaction.
4. Insufficient planning of formal and informal training sessions affects the production of effective interaction.
5. Poor or insufficient formal and informal communication is a reason for decreased interaction between partners.
6. Setting inappropriate team working principles hinders successful partner interaction.
7. Use of coercive power and individual decision-making negatively influences interaction.
8. The presence of opportunistic behaviour during the alliance process inhibits the desire to create an interactive team.
9. Insufficient information regarding the alliance environment and failure to transfer important knowledge impacts negatively on successful interactive teamwork.

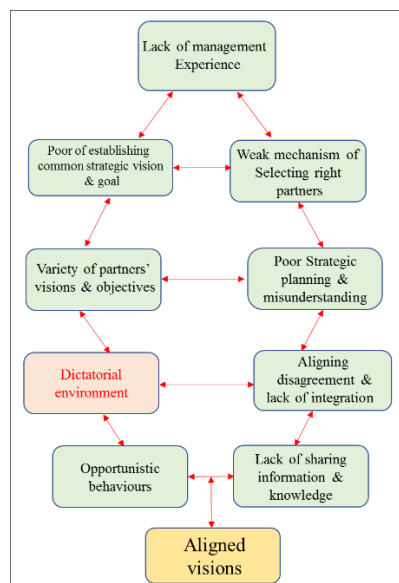
#### **7.4.3.3.28 Indicative Actions to Cope with the Barriers to Building Partners' Interaction in Strategic Alliances**

1. Impress on construction managers the importance of an interacting team to accelerate alliance delivery.
2. Choose partners carefully by ensuring they have experience of collaboration strategies.
3. Encourage trusting relationships between partners and help to increase commitment through provision of a democratic environment, where team interaction is high.

4. Concentrate on the development of formal training sessions, such as seminars and workshops, as well as informal sessions such as personal visits to offices and informal events, which help to facilitate the transference of experiences and skills and achieve the aims of interaction and teamwork.
5. Work on communication capabilities and recognise essential tools that help to enhance partner interaction.
6. Place emphasis on the adoption of non-coercive power during decision-making and dealing with partners, which can be reflected on developing interactive relationships.
7. Continuously improve the development of an interaction mechanism, that helps to discover and eliminate signs of opportunistic behaviours.
8. Support a mechanism to share knowledge and supply important information, which can aid in reducing the risks of an external environment whilst strengthening the essence of interactive teamwork.

#### 7.4.3.3.29 Barriers to Building Aligned Partners' Visions

The barriers to building aligned partner visions are illustrated below, along with a brief description.



**Figure 7-29 Barriers to Building Aligned Partners' Visions**

1. Failure of inexperienced management to comprehend the visions and objectives of targeted partners, increases the difficulty of formulating a proper vision for the alliance.
2. Poor management and partner capability to create a gathered vision will detrimentally impact on the achievement of requirements.

3. Poor unified strategic planning results in various visions and objectives leading to misunderstanding, misalignment, disintegration and disagreement.
4. Reaching decisions individually inhibits the possibility of unifying partners' visions.
5. Partners who behave opportunistically try not being engaged with others to unify visions, instead they seek to create conflict and tension to avoid alignment.
6. Insufficient sharing of knowledge and required information especially in the initial stages of creating the alliance hinders the possibility of aligning visions properly.

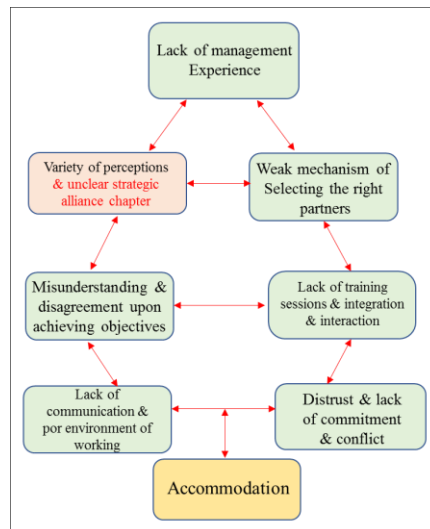
#### **7.4.3.3.30 Indicative Actions to Overcome the Barriers to Building Aligned Partners' Visions in Strategic Alliances**

1. Train high-level managers to deal appropriately with multiple visions and objectives during the establishment of the alliance and eventually realise one common vision and goal.
2. Develop strategies for the selection of partners and learn the fundamental criteria required in targeted partners, which can facilitate the alliance vision design smoothly.
3. Motivate managers and partners to learn and adopt developed planning strategies which can act as a guide to unifying partners' visions.
4. Propagate the essence of decision-making as one team.
5. Hold regular meetings, especially in the initial stages of alliance creation to follow and monitor any possible opportunistic behaviours.
6. Place emphasis on the development of both top to bottom and bottom to top communication channels as it facilitates the formulation of a strategic vision.

#### **7.4.3.3.31 Barriers to Achieving Behavioural Accommodation of Partners**

The barriers to achieving behavioural accommodation of partners are shown below, along with a brief description.





**Figure 7-30 Barriers to Achieving Behavioural Accommodation**

1. Poor balance of ambitions and perceptions of the alliance partners by management leads to a decrease in partner behavioural accommodation in the alliance process.
2. The selection of inexperienced partners leads to the poor adaption of the alliance procedures and dispersion the structure of the alliance charter.
3. Misunderstanding the requirements of the alliance process leads to the occurrence of disagreement regarding objective achievement.
4. Disagreement of partner objectives results in tension, conflict and poor behavioural accommodation.
5. Minimal communication levels between partners hinders the possibility of gaining applicable behavioural accommodation.
6. Poor understanding of training to strengthen interaction and integration increases the risk of insufficient behavioural accommodation.
7. Distrust and non-commitment are significant factors in the reduction of behavioural accommodation, as they increase the possibility of conflict between partners and could lead to the adoption of opportunistic behaviour to compensate for the loss.

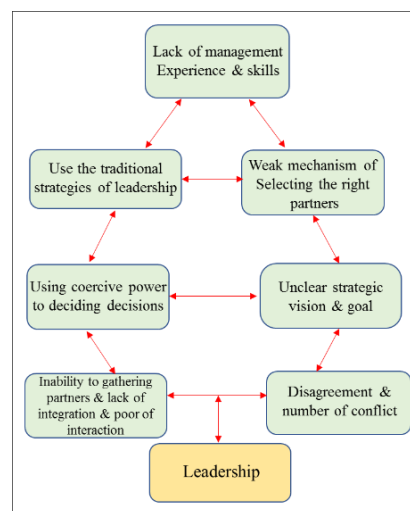
#### **7.4.3.3.32 Indicative Actions to Cope with the Barriers to Achieving Behavioural Accommodation in Strategic Alliances**

1. Conduct regular meetings at top management level to facilitate the understanding of partner requirements in order to accommodate the behaviours during the alliance process.
2. Review the history of targeted partners to avoid the problem of engagement with companies not experienced in cooperative strategies.

3. Obtain agreement between partners regarding objectives especially during the foundation stage of the alliance enhances behavioural accommodation in the next stage.
4. Continuous discussion of partner targets using friendly language prevents any signs of tension and the occurrence of conflict.
5. Positive communication at alliance levels enhances the ability to obtain effective behavioural accommodation of partners.
6. Continual improvement of training programmes facilitates the capability of increasing partners' interaction, integration and behavioural accommodation within the alliance process.
7. Listen to all partners' opinions to help establish principles of trust and commitment, which can enhance accommodation of partners' behaviours during task achievement.

#### 7.4.3.3.33 Barriers to Building Successful Leadership in Alliances

The barriers to building successful leadership in an alliance are shown below, along with a brief description.



**Figure 7-31 Barriers to Building Successful Leadership**

1. The selection of inappropriate partners results in poor leadership style, which is unable to work with fast changes in the business environment.
2. The use of traditional styles of leadership strategies may demonstrate inexperienced managers, who have not engaged within collaboration strategies previously.
3. Traditional leadership strategies result in unachievable decisions and regulations, that cannot meet partners' objectives.
4. The use of coercive power in the decision-making process decreases alliance leadership success.

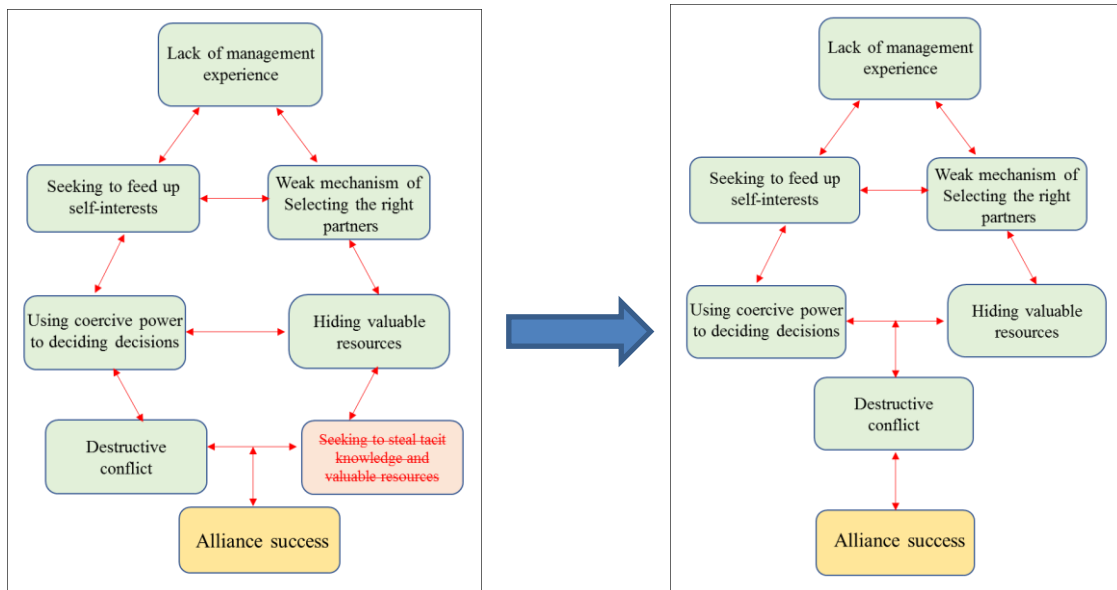
5. Weak leadership results in the mismanagement of a proper alliance vision that meets partner requirements.
6. Tension, conflict and insufficient alliance interaction results in leadership being incapable of gathering all partners together and discussing views.

#### **7.4.3.3.34 Indicative Actions to Overcome the Barriers to Building Successful Leadership in Strategic Alliances**

1. Demonstrate advanced leadership strategies that improve management skills and guide applicable ways for choosing appropriate partners.
2. Explain to managers through training sessions the differences between traditional styles of leadership and developed styles and how advanced strategies can enhance the performance of partners toward alliance success.
3. Encourage managers to use advanced strategies which help to adopt non-coercive power and are beneficial for alliance project success.
4. Enhance the capability of the management team for developing strategic intent by following advanced leadership strategies.
5. Assure alliance partners and participants are integrated to improve the interaction mechanism, motivate alliance success and develop leadership skills.

#### **7.4.3.3.35 The Impact of Opportunistic Behaviour on Building Strategic Alliance Success**

The impact of opportunistic behaviour on building strategic alliance performance success is shown below, along with a brief description.



**Figure 7-32 Impact of Opportunistic Behaviour on Alliance Performance Success**

1. Signs of opportunistic behaviour related to inexperienced management and poor selection of partners as a result of failure to study their background and reputation within the industry.
2. The presence of self-interest by entering an alliance and obtaining tacit knowledge and resources unfairly is a sign of opportunistic behaviour.
3. Intensive use of traditional leadership style and coercive power within the decision-making process without allowing partners to contribute and share opinions when deciding the alliance's future.
4. Cumulative destructive conflicts between partners regarding alliance procedures and decisions are a sign of increasing opportunistic behaviour.
5. Concealment of valuable tangible and intangible resources and a refusal to contribute or offer opinions is a sign of opportunistic behaviour.

#### **7.4.3.3.36 Indicative Actions to Overcome the Impact of Opportunistic Behaviour**

1. Develop the capabilities of managers regarding the mechanism design for selection of the right partners, to avoid the presence of opportunistic behaviour during alliance tasks.
2. All objectives and requirements should be clearly stated especially at the first stage of alliance creation and dealt with transparently.
3. Democratic power should be encouraged to reach future alliance task decisions cooperatively.
4. Avoid destructive conflicts by supplying space for all opinions and facilitate mutual communication amongst all alliance levels.

5. Place emphasis on sharing all required and important resources within the alliance especially at the first stages of alliance project establishment.

#### **7.4.4 Group 4: Enhancement of the Indicators of Strategic Railway Alliances Performance via Behavioural Factors**

##### **7.4.4.1 Preambles**

Group 4 is a core part of the framework shown in Figure 7-33 and illustrates SA performance indicators, along with the behavioural factors identified in the previous stage. The purpose of this section is to realise the role of the factors group, when enhancing each indicator as demonstrated in tables below.

The design of this framework specifically targets audiences from both construction strategic alliances, and strategic alliances in businesses generally. This part of the guideline should be read alongside the provided framework. The targeted readers are expected to recognise the fundamental role of these motivational behavioural factors to achieve each alliance performance indicator separately and provide an entire indicator map with these factors.

##### **7.4.4.2 Strategic Railway Alliances Performance Indicators**

The essential SA performance indicators that are adopted from the literature review are listed below and shown in Figure 7-33.



**Figure 7-33 Indicators of Strategic Railway Alliances Performance**

#### 7.4.4.2.1 Behavioural Factors that Enhance the Achieving Goals Indicator

The main behavioural factors that enhance the success of the achieving goals indicator and a description of the mechanism of enhancement are provided in Table 7-2 below.

**Table 7-2 Behavioural Factors and Enhancement Mechanism for the Indicator of Achieving Goals**

N	Indicators of Strategic Railway Alliance Performance	Behavioural Factors	Mechanism for Enhancing the Indicator via the Behavioural Factors
1	Achieving Goals	Trust	<ol style="list-style-type: none"> <li>Put all objectives and requirements on the table from the first meeting as it enhances the building of trust between partners and facilitates the achievement of reaching the final goals.</li> <li>Build a democratic climate at all stages of an alliance project as it helps to grow trust principles and achieve alliance and partner goals smoothly.</li> </ol>
		Commitment	<ol style="list-style-type: none"> <li>Build an alliance relationship on trust as it will enhance partner commitment and the fulfilment of goals.</li> <li>Establish all partners' objectives within a common alliance goal to motivate trust and commitment.</li> <li>Share everything as it is valuable for building trust and commitment to an alliance charter.</li> </ol>
		Knowledge Sharing	<ol style="list-style-type: none"> <li>Share explicit and tacit knowledge when required between partners, as it will improve the relationships and increase efforts toward achieving goals.</li> <li>Exchange experiences and skills inside the alliance level as it will enhance the capabilities of partners to deliver the project as a core motivation.</li> <li>Transfer information regarding competitive environments and risks as it can enhance the ability for proactive strategic planning for goal achievement.</li> </ol>
		Mutual Communication	<ol style="list-style-type: none"> <li>Develop communication channels throughout the alliance, as information transfer strength at all stages will facilitate the achievement of the alliance goal.</li> <li>Place Emphasis on the importance of informal communication such as office visits and lunches because it builds strong relationships and trust which enables the achievement of goals easily.</li> <li>Continuously work on improving formal communication which draws the way for achieving goals clearly by setting responsibilities and tasks of achievement.</li> </ol>
		Mutual Dependency	<ol style="list-style-type: none"> <li>Distribute the responsibilities and functions between partners and participants, to motivate trust and dependency principles and achieve goals simultaneously.</li> <li>Put all resources and capabilities on the table as it enhances the capability of partners to adopt dependency rules when achieving goals.</li> </ol>

			<ol style="list-style-type: none"> <li>3. Concentrate on building a trusted environment to facilitate the establishment of dependency relations.</li> </ol>
		Non-Coercive Power	<ol style="list-style-type: none"> <li>1. Avoid all coercive power styles which have been used traditionally in hierarchical organisational systems.</li> <li>2. Reach decisions democratically through equal discussion of all opinions.</li> <li>3. Conduct alliance functions and make decisions as a leader, not as a manager.</li> <li>4. Enhance brainstorm strategies through a democratic climate, to discuss all opinions provided from top-to-bottom and from bottom-to-top in the alliance, which facilitates goal achievement and avoids risks.</li> </ol>
		Aligned Partners' Visions	<ol style="list-style-type: none"> <li>1. Accept all alliance partner visions and collate them within a common vision, which enhances the capabilities of partners to achieve goals satisfactorily.</li> <li>2. Discuss all partners' visions in a collegiate climate, which helps to enhance trust building.</li> </ol>
		Aligned Partners' Objectives	<ol style="list-style-type: none"> <li>1. Carefully listen to all targets as it can enhance the building of trusted and positive relationships.</li> <li>2. Determine all ways and possibilities of amalgamating partners' goals into one common goal.</li> <li>3. Review and discuss all opinions and objectives provided by partners to understand and achieve the alliance goal.</li> </ol>
		Training	<ol style="list-style-type: none"> <li>1. Place emphasis on running training sessions during all the alliance stages, especially at the initial stage.</li> <li>2. Regular unplanned meetings and visits are important to develop skills in informal training.</li> <li>3. Schedule training sessions using the help of highly experienced partners, which enables accurate delivery of the project successfully.</li> <li>4. Match inexperienced partners with the highly experienced ones so they can practically absorb skills needed for achievement problems.</li> </ol>
		Leadership	<ol style="list-style-type: none"> <li>1. Use developed leadership styles such as transformational leadership, which helps with adaptation when dealing with critical issues strategically.</li> <li>2. Deal with partners and participants collegiately by discussing the surrounding conditions and listening to them without giving orders.</li> <li>3. Work to develop management capabilities so that partners can be gathered around a meeting table working collaboratively.</li> </ol>
		Teamwork	<ol style="list-style-type: none"> <li>1. Work to unify all backgrounds and perspectives from the initial stage of the alliance to facilitate the establishment of strong teamwork, which can achieve goals.</li> <li>2. Build trusted relationships that enhance partner interaction as one team.</li> <li>3. Achieve alliance goal results by unifying the behavioural features of partners.</li> <li>4. Improve communication tools between partners to be an efficient team able to deliver goals safely.</li> </ol>
		Constructive Conflict	<ol style="list-style-type: none"> <li>1. Encourage partners to share their opinions regarding alliance goal achievement and establish a policy for constructive discussion.</li> </ol>

			<ol style="list-style-type: none"> <li>2. Work to inform all the alliance participants regarding plans and enhance capabilities for giving constructive feedback.</li> <li>3. Encourage participants at all levels and specialisations to support management opinions based on their practical experiences.</li> <li>4. Guide partners to use brainstorming techniques and critical thinking strategies, which accelerate the achievement of goals and help to avoid problems.</li> </ol>
		Openness to Challenge	<ol style="list-style-type: none"> <li>1. Encourage the technique of 'challenging partners' opinions publicly' and provide everything beneficial for alliance goal achievement.</li> <li>2. Enhance partners' abilities to develop their skills of positive opposition to obtain optimal suggestions for delivering the alliance project properly.</li> <li>3. Build a trusted and democratic climate inside the alliance, which is important to enhance constructive conflict skills and challenge the opposing views of partners positively.</li> </ol>
		Selecting Right Partners	<ol style="list-style-type: none"> <li>1. Select experienced partners with experience of collaboration strategies, which is an essential motivator for achieving an established goal.</li> <li>2. Select partners who have the same achievement agenda and their reputation is high.</li> <li>3. Select partners who have important tangible and intangible resources, which are essential for alliance project delivery.</li> </ol>
		Partners' Interaction	<ol style="list-style-type: none"> <li>1. Allow and encourage a democratic climate for partners to share their opinions, which facilitates the enhancement of positive interaction skills.</li> <li>2. Amalgamate the partner objectives within a common alliance goal, which increases efforts to be a trusted, transparent and interactive team.</li> <li>3. Develop communication channels and share required knowledge to enhance dependency and interaction towards achieving goals.</li> </ol>
		Understanding Alliance Objectives	<ol style="list-style-type: none"> <li>1. Formulate clear and classified criteria of the alliance tasks to facilitate and enhance partner understanding and the achievement of goals smoothly.</li> <li>2. Friendly and open discussion during the decision-making process increases the possibility of building mutual understanding.</li> <li>3. Place emphasis on the role of mutual communication throughout the alliance levels, which develops the abilities of understanding.</li> <li>4. Build a qualified charter for the alliance, which enhances the priorities of partners' understanding and characterises the achievement of goals.</li> </ol>
		Behavioural Accommodation	<ol style="list-style-type: none"> <li>1. Listen to all opinions and suggestions from partners and monitor their behaviours to help draw a clear picture regarding perceptions. This will facilitate the creation of an appropriate accommodated environment.</li> <li>2. Establish a democratic environment inside the alliance that enhances the accommodation of partners' behaviours with the project functions.</li> <li>3. Build trusted and committed relationships and improve formal and informal communication as a</li> </ol>



			mechanism for enhancing the accommodation of behaviours.
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Figure 7-34 below includes all the enhancement indicators for achieving goals via behavioural factors.



Figure 7-34 Behavioural Factors that Enhance Achievement of the Indicator for Achieving Goals

#### 7.4.4.2.2 Behavioural Factors that Enhance the Indicator for Achieving Profit

The main behavioural factors that enhance success of the achieving profit indicator and a description of the enhancement mechanism are shown in Table 7-3 below.

Table 7-3 Behavioural Factors and Enhancement Mechanisms for the Indicator of Achieving Profit

N	Indicators of Strategic Railway Alliance Performance	Behavioural Factors	Mechanism for Enhancing the Indicator via the Behavioural Factors
2	Achieving Profit	Trust	<ol style="list-style-type: none"> <li>1. Set plans and costs for alliance project achievement within a trusted environment, that facilitates estimation of the amount of profits that can be gained.</li> <li>2. Exchange all information related to the internal and external risks of alliance fulfilment, that help to enhance trust and facilitate the approximation of the final profit for each partner.</li> </ol>
		Commitment	<ol style="list-style-type: none"> <li>1. Create a proper and studied charter for the alliance project, which increase the chance of building partners' commitment and achieving profits.</li> </ol>

			<ol style="list-style-type: none"> <li>2. Ensure satisfaction of partners for the planned goal, if their targets are included, this will lead to high commitment when delivering the project.</li> </ol>
		Mutual Communication	<ol style="list-style-type: none"> <li>1. Develop communication channels to exchange information and experiences regarding achievement risks and costs, that increase the opportunity of achieving high profits.</li> <li>2. Informal communication is more important and faster than formal when dealing with arising problems and potential costs.</li> <li>3. Strong communication between partners builds trusted and committed relationships, which makes them conscious of alliance project delivery and achieving success and profit.</li> </ol>
		Knowledge Sharing	<ol style="list-style-type: none"> <li>1. Share tacit and explicit knowledge between partners to learn skills and strategies, which develop awareness related to the risks and increase profits.</li> <li>2. Shared knowledge enhances the capabilities of partners to recognise costs and risks which can affect delivery and profit of the project.</li> <li>3. Concentrate on sharing required knowledge at all levels and periods of time for the alliance project.</li> </ol>
		Training	<ol style="list-style-type: none"> <li>1. Conduct regular training sessions during different stages of the alliance project to increase skills and enable understanding of strategies for delivering the project at the lowest cost with a higher profit.</li> <li>2. Training sessions are fundamental for dealing in a competitive environment with threats and risks.</li> <li>3. Place emphasis on increasing awareness through daily and informal training such as chatting and sharing points of views, which is important to enhance partners capabilities to prevent risks that affect growth profits.</li> </ol>
		Leadership	<ol style="list-style-type: none"> <li>1. The leadership team should focus on adoption of developed strategies, which deal with urgent situations that impact procedures and target profit.</li> <li>2. Enhance the capabilities of partners and participants through connection via strong communication channels bringing up-to-date information along with environmental changes.</li> <li>3. Build the skills of managers by linking them with highly experienced partners to enhance the loop of leadership abilities.</li> <li>4. Develop trusted relationships and spread a democratic climate to quickly deal with risks by sharing the information and knowledge required.</li> </ol>

			<ol style="list-style-type: none"> <li>5. Successful leadership can accurately produce a feasibility study to determine financial resources and materials required for the alliance project achievement and estimate the range of targeted profits.</li> </ol>
		Mutual Dependency	<ol style="list-style-type: none"> <li>1. Depending partners on each other facilitates sharing skills and experiences which are important to develop mechanism of promoting alliance success.</li> <li>2. Mutual communication and the sharing knowledge are fundamental for building dependency relations, which can transfer all information and knowledge related to alliance achievement, such as risks and profits.</li> <li>3. The presence of trust between partners and participants is a sign of building commitment and dependency and allows project delivery without any losses.</li> </ol>
		Aligned Partners' Visions	<ol style="list-style-type: none"> <li>1. The alignment of partner visions with the strategic vision of the alliance is an indicator for delivering a project successfully.</li> <li>2. Study all partners' perceptions through a precise feasibility study to determine the costs of alliance project achievement and profits.</li> <li>3. Align visions to avoid the risk of opportunistic behaviour and conflict occurring, which could affect the future of the alliance and profits.</li> </ol>
		Aligned Partners' Objectives	<ol style="list-style-type: none"> <li>1. Amalgamate all partners' objectives within a common goal, which is essential to build achievable plans, trust and commitment, and can be reflected finally on the results and profits of the alliance.</li> <li>2. Enhance the mechanism for gathering all alliance parties' objectives, which helps to link and set all behaviours to achieve the smooth transition of practical and financial targets.</li> <li>3. A mechanism for aligning partners' objectives helps to determine and estimate the material and financial efforts required to deliver the alliance project and gain the benefits of it.</li> </ol>
		Teamwork	<ol style="list-style-type: none"> <li>1. The success of the alliance system and achievement of targeted profits is linked to the presence of trusted relationships between parties and teamwork.</li> <li>2. Working as one team facilitates the exchange of information and knowledge by building strong relationships and informal communication channels.</li> <li>3. A collegiate climate during alliance procedures helps to build foundations for teamwork, which reflects on the capability of delivering a financially successful project.</li> </ol>

		Partners' Interaction	<ol style="list-style-type: none"> <li>1. High profit is related to the satisfaction between partners and can be achieved through the strengthening of partner interaction.</li> <li>2. Strong interaction is a positive sign for decreasing potential conflict and opportunistic behaviours, which affects profits.</li> <li>3. Encourage partners to be a dynamic interactive team, which is essential to enhance trust, commitment and share resources to facilitate alliance project delivery.</li> </ol>
		Selecting Right Partners	<ol style="list-style-type: none"> <li>1. Success of the alliance project lies in selecting appropriate and highly experienced partners, who can warn others regarding potential achievement risks that can influence project delivery.</li> <li>2. Select highly experienced partners as it facilitates the capability for sharing developed skills and reflects positively on achieving the project safely with targeted profits.</li> <li>3. Form an alliance with partners who have similar targets and perceptions, this strategically enhances the chance of proper delivery of the project both in a timely fashion and financially.</li> </ol>
		Understanding alliance Objectives	<ol style="list-style-type: none"> <li>1. Develop partners' understanding regarding alliance goal achievement, as it is critically important for delivery of an alliance project on time.</li> <li>2. Formulate the alliance charter and goals in a strategic way, that helps to make the process of alliance achievement comprehensible and achievable.</li> <li>3. Enhance the capability of building an understanding of partners through the development of communication channels, which are important to generate trust and commitment for the alliance charter.</li> </ol>

To understand the indicator for achieving profit via behavioural factors, Figure 7-35 illustrates the process.



**Figure 7-35 Behavioural Factors that Enhance the Achievement of the Indicator for Achieving Profit**

**7.4.4.2.3 Behavioural Factors that Enhance the Indicator of Reputation**

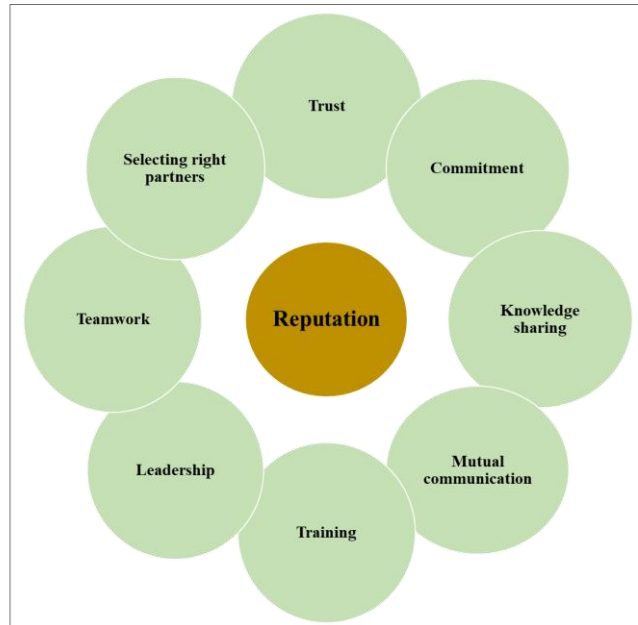
The substantial behavioural factors that enhance achievement of the reputation indicator and a description of the mechanism for enhancement are detailed in Table 7-4 below.

**Table 7-4 Behavioural Factors and a Mechanism for Enhancement of the Indicator for Reputation**

N	Indicators of Strategic Railway Alliance Performance	Behavioural Factors	Mechanism for Enhancing the Indicator via the Behavioural Factors
3	Reputation	Trust	<ol style="list-style-type: none"> <li>1. Conduct the alliance tasks based on trust and transparency, which are fundamental for developing the reputation of partners for future work.</li> <li>2. An appropriate strategy adopted by the leadership team to deal with environmental risks and discussion dynamics within a democratic climate can reflect positively on the reputation of individual organisations when managing other alliances in the future.</li> </ol>
		Commitment	<ol style="list-style-type: none"> <li>1. Commitment and partner honesty for the alliance charter is a positive indication for others when recommending future joint alliances.</li> </ol>
		Sharing Knowledge	<ol style="list-style-type: none"> <li>1. The capability of sharing experiences and knowledge is considered an important factor for increasing and receiving requests to be partners within alliances.</li> <li>2. The capability of sharing explicit and tacit knowledge and building transparent relationships with partners is essential to create a positive reputation for leading future projects to success.</li> </ol>

			<ol style="list-style-type: none"> <li>3. The stock of knowledge, experiences and skills and the clarity of the mechanism for sharing with potential partners is considered a strategic priority for improving reputation.</li> </ol>
		Leadership	<ol style="list-style-type: none"> <li>1. The application of developed strategies for managing an alliance project is important for enhancing the reputation of the collaborative organisations.</li> <li>2. Availability of a democratic climate to discuss decisions and collegiately work with all opinions at different levels of the alliance will enhance the reputation and increase recommendations and demands for the future.</li> <li>3. The speed of leadership response for environmental changes and the capability to find a quick solution will enhance the experience and contribute positively to reputation in the future.</li> </ol>
		Selecting Right Partners	<ol style="list-style-type: none"> <li>1. Working and delivering an alliance project successfully with well-chosen partners will enhance the reputation.</li> <li>2. A successful alliance project develops the reputation of partners because it gives an indication that the alliance leadership has a logical strategy for selecting the right partners.</li> </ol>
		Mutual Communication	<ol style="list-style-type: none"> <li>1. The use of a developed strategy for formal and informal communication that is adaptive to changes in the external environment and the alliance processes, will enhance the building of a competitive advantage which can improve the reputation of partners.</li> </ol>
		Teamwork	<ol style="list-style-type: none"> <li>1. The skill of working as a network or a chain that completes and flatters one another will enhance reputation for managing new alliances.</li> <li>2. The presence of trust between partners facilitates the ability to be integrated and work as one team, which ultimately enhances reputation to run alliances in the future.</li> </ol>
		Training	<ol style="list-style-type: none"> <li>1. Highly experienced and trained partners are able to share their skills with others which can reflect on their reputation.</li> </ol>

To recognise the methods for enhancement of the indicator for reputation via behavioural factors Figure 7-36 below demonstrates the process.



**Figure 7-36 Behavioural Factors that Enhance Achievement of the Indicator for Reputation**

**7.4.4.2.4 Behavioural Factors that Enhance the Indicator of Behavioural Satisfaction**

The main behavioural factors that enhance the success of the behavioural satisfaction indicator and a description of the mechanism of enhancement are explained in Table 7-4 below.

**Table 7-5 Behavioural Factors and the Mechanism for Enhancement of an Indicator of behavioural satisfaction**

N	Indicators of Strategic Railway Alliance Performance	Behavioural Factors	Mechanism for Enhancing the Indicator via the Behavioural Factors
4	Behavioural Satisfaction	Trust	<ol style="list-style-type: none"> <li>1. Create alliance relationships based on trust, which leads to the exchange of highly satisfied partners.</li> <li>2. Transparent discussion during the decision-making stage enhances acquisition of partners' satisfaction.</li> </ol>
		Commitment	<ol style="list-style-type: none"> <li>1. Formulate the guidelines, charter and regulations of the alliance similarly to those of the partners. This builds partners' commitment and achieves behavioural satisfaction.</li> </ol>
		Knowledge Sharing	<ol style="list-style-type: none"> <li>1. Encouraging the sharing of information and required knowledge with others within a trusted environment results in behavioural satisfaction.</li> <li>2. Sharing tacit knowledge when required is considered one of the motivations for developing partner satisfaction.</li> </ol>
		Mutual Communication	<ol style="list-style-type: none"> <li>1. Establish advanced communication channels which can link and update the</li> </ol>

			<p>participants across the alliance levels and increase partner satisfaction.</p> <ol style="list-style-type: none"> <li>2. Develop informal communication methods between partners which builds strong and trusted relationships and makes partners satisfied.</li> <li>3. Use a variety of communication tools (technology, oral, announcements, letters) which help to increase partner satisfaction and enhance their productivity.</li> </ol>
		Mutual Dependency	<ol style="list-style-type: none"> <li>1. The openness of partners and being mutually dependent to share tangible and intangible resources enhances satisfaction.</li> <li>2. Trust and capability of sharing information and knowledge are key for developing dependent relationships and obtaining positive satisfaction which leads to alliance success.</li> </ol>
		Non-Coercive Power	<ol style="list-style-type: none"> <li>1. Use a democratic environment for discussing the alliance process and issues, this is essential to enhance satisfaction.</li> <li>2. Partner satisfaction can be enhanced through a democratic climate and brainstorming sessions that include the top level of management. This offers an opportunity for other levels to share their opinions regarding the issues and progress of the alliance.</li> </ol>
		Aligned Partners' Visions	<ol style="list-style-type: none"> <li>1. Transparency and discussion of partner visions especially within the initial stages of the alliance help to build partners' trust, commitment and satisfaction whilst avoiding conflict and opportunism at the next stages.</li> </ol>
		Aligned Partners' Objectives	<ol style="list-style-type: none"> <li>1. Being honest, listening and understanding objectives that seek to be achieved and engaged with during the common goal of the alliance act as a motivator for growing trust, commitment and behavioural satisfaction.</li> </ol>
		Leadership	<ol style="list-style-type: none"> <li>1. A dynamic and advanced style of leadership strategy when dealing with partners is key for achieving behavioural satisfaction.</li> <li>2. Not giving orders and avoiding a hierarchical system of management, whilst using the flexibility of sharing opinions from different levels, are all ways of enhancing satisfaction and achieving the success of the alliance and leadership.</li> </ol>
		Teamwork	<ol style="list-style-type: none"> <li>1. Conducting alliance tasks and functions as one team promotes behavioural links, informal communication, trust and commitment which reflect positively on satisfaction.</li> <li>2. The feeling of belonging to one team for the alliance participants enhances the degree of satisfaction through policies and decisions at the leadership level.</li> </ol>
		Selecting Right Partners	<ol style="list-style-type: none"> <li>1. Selection of appropriate partners means aligning visions and objectives considered essential for achieving satisfaction.</li> </ol>



			<ol style="list-style-type: none"> <li>2. Selecting the right partners facilitates to create a trusted, committed and dependable environment, away from conflict and opportunism, where satisfaction is ultimately achieved.</li> </ol>
		Partners' Interaction	<ol style="list-style-type: none"> <li>1. Design a democratic climate for the alliance that assists partners to interact with each other and helps to build high satisfaction.</li> <li>2. Continuous interaction between top level and lower levels increases satisfaction which results in high productivity.</li> <li>3. Building relationships based on trust, commitment, sharing everything, advanced communication and constructive challenge of opinions enhances partner interaction and personal productivity which can achieve profits.</li> </ol>
		Understanding the Alliance Objectives	<ol style="list-style-type: none"> <li>1. Clear design of alliance rules, guidelines and regulations are considered essential to conduct alliance tasks smoothly and fulfil understanding and satisfaction regarding the alliance principles.</li> <li>2. Total realisation by partners that their objectives are linked within the alliance's common goal increases the chance of behavioural satisfaction.</li> </ol>
		Behavioural Accommodation	<ol style="list-style-type: none"> <li>1. Giving partners and participants freedom to deal with issues and raise their ideas and solutions positively is considered important to achieve a feeling of being accommodated and satisfied.</li> <li>2. The careful study of behaviours and backgrounds of partners will facilitate the achievement of behavioural accommodation during the alliance process.</li> </ol>
		Constructive Conflict	<ol style="list-style-type: none"> <li>1. Constructive discussion during the decision-making process gives a positive indication for partners that their ideas and opinions are valuable for solving issues in the alliance implementation, which will reflect on enhancing the possibility of achieving high satisfaction.</li> <li>2. Non-coercive power and a democratic environment are motivators for building healthy discussions and achieving behavioural satisfaction.</li> </ol>

Methods to enhance the indicator of behavioural satisfaction via behavioural factors are illustrated in Figure 7-37 below.



**Figure 7-37 Behavioural Factors that Enhance Achievement of the Indicator for Behavioural Satisfaction**

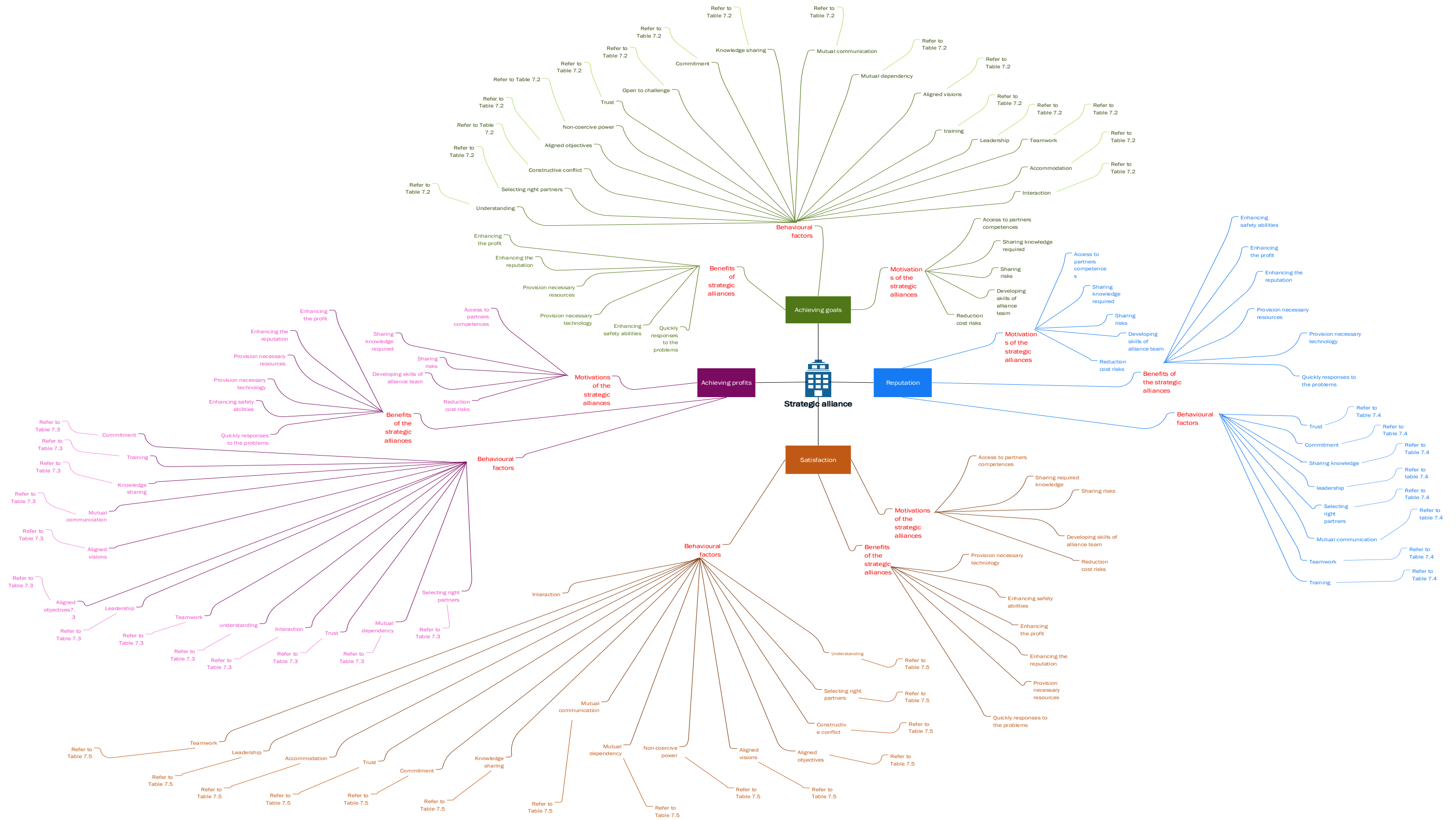


Figure 7-38 Developed Framework

## **7.5 Chapter Summary and the Link**

These chapter summaries the findings and outcomes of the present research linking with the research problem and proposed conceptual framework. All these findings and outcomes were organised logically in the format that can present a framework that can enhance the performance of SRAs. Given that, the next chapter illustrates the validation process and its procedures that were undertaking intensively.

## Chapter 8 Validation of the Findings and Outcomes

### 8.1 Introduction

Having critically discussed the findings and outcomes of the research in Chapter 7, an attempt is made in the current chapter to present the process and procedures of the validation. A description of the experts' background and the validation process, discussion of the findings and any refinement in regard to the findings and outcomes are presented in detail. The chapter concluded by the refinement for the strategic guideline and the final framework.

### 8.2 Validation Via Expert Interviews

Research validation is considered as one of the important aspects of conducting doctoral research as it assists in increasing the robustness of the research outcome. In this section, validation of the strategic guidelines and a framework for SRAs has been validated through expert interviews with four professional experts, who effectively participate in the UK railway sector. To clarify the background of the experts, Table 8-1 below outlines some information relating to the professionals and this section critically explores the evaluation of their viewpoints regarding developed strategic guidelines and a framework for SRAs. All details of formation and justification the validation stage was provided in section 3.16.

**Table 8-1 Profile of Validation Experts**

<b>Experts No.</b>	<b>Description</b>
VE1	Chief Railway Officer
VE2	Project Director
VE3	Project Manager
VE4	Safety Manager

#### 8.2.1 Validation of Barriers and Indicative Actions of the Motivations of the Strategic Railway Alliances within the Strategic Guidelines and Framework

According to the first element that exists within the motivations of SRAs “*access to partners’ competencies*”, this relates to the investigation of the main barriers that impact on this motivator and proper solutions to overcome them. All the experts agreed with this motivator, furthermore VE2 and VE1 asserted that top management level in a SRA should carefully select highly experienced partners through intense studying of their practical background. VE4 also stated that it is important for the relationships between partners to be strongly tied especially during discussions relating to the alliance visions and

objectives, to avoid misunderstanding during the implementation of the alliance project. While, VE3 mentioned that it is not just an unclear vision of the alliance that is a barrier, as ambiguity during formulation of the objectives is also considered a fundamental barrier to motivation.

With regards to the second motivator “*sharing required knowledge*”, three of the experts accepted the description of this barrier and its indicative actions without any further comments. Although VE4 conducted some amendments to the barrier by adding “*poor democratic environment*”, commenting that a poor democratic environment will result in distrust and poor relations between partners. Therefore, the positioning of this added element should be included in the guidelines.

In terms of the third element “*sharing delivery risks*”, this is considered an essential motivator to creating a SRA to deliver the project performance successfully. VE2 and VE4 agreed to the barriers and solutions supplied relating to this motivator and expressed the importance of conducting regular training sessions to increase participant awareness and aid in confronting signs of risks. Also, VE3 agreed on all the points without any comments. Whilst VE1 mentioned that it should establish a unit or department occupied by highly experienced participants, who are responsible for distributing sensitive information between departments, thus avoiding any problems during implementation of the alliance project. This is a valid point made by VE1; thereby, the researcher will alter the strategic guidelines to reflect the experts’ point of view.

Relating to the fourth element “*development skills of alliance team*”, all experts agreed with the points mentioned in the guidelines without any further comments. Although, VE3 mentioned briefly that it is important to add the selection of inexperienced partners as one of the main barriers, that hinders development of skills and alliance teamwork.

Regarding the final element in this group “*reduction cost risks*”, all the experts agreed with the points mentioned relating to the barriers and indicative actions without mentioning any amendments. In addition, all experts were satisfied with the design of the developed framework expressing that it is understandable, logical and sequential, and does not require any further amendments.

## **8.2.2 Validation of Barriers and Indicative Actions of the Benefits of the Strategic Railway Alliances within the Strategic Guidelines and Framework**

With regards to validating the main benefits which can be gained from engaging within a SRA, the first benefit of “*enhancing the profit*” was accepted by all four experts. This benefit refers to the ambition of partners to be participants within an alliance due to the possibility of achieving high profits and improving

their economic position. VE1 stated that it is important to form plans for delivering the alliance project properly and strategically by reaching agreement between all partners in advance and setting out an underlying plan by conducting a feasibility study to determine costs and profit. While VE3 also mentioned that delivering the alliance project within the timeframe and gaining the targeted profits is essential but delivery should be of the highest standard as this is reflected in the reputation of partners' companies in the end. While VE2 and VE4 both agreed that proper financial planning during the initial stages of the alliance project is the secret to gaining satisfying profits and developing their businesses.

The next benefit focuses on “*enhancing partners reputation*” where the ambition of partners is not limited to gaining money, but instead strategic thinking seeks to improve their market position by developing skills and experiences through collaboration with highly experienced partners and obtaining learnt lessons related to dealing with project implementation issues. VE4 reacted to the importance of lessons learnt and considered this element to be essential for enhancing the skills of partners, stressing that the role of sharing experiences within boundaries of the alliance should be championed from the first stage of the project to motivate the abilities of each partner to deal with immediate issues as they occur. This manner enhances the capability of partners to develop their internal strategies and business models can be adapted with the challenges of a competitive environment thus boosting reputation. Furthermore, VE1 focused on a significant point regarding review of the organisational partner system, stating that changing the traditional hierarchy of partners' managerial levels is required to provide a bigger opportunity for different levels to share experiences during the initial stages of conducting plans. While flexibility of developed organisational systems can help to adopt strategies, which can then be reflected beneficially on the reputation of the partners' organisation. While VE2 and VE3 were highly satisfied with the details provided related to this benefit without any comments to add.

The third benefit “*providing necessary resources*” was accepted by all four experts with only minor alterations suggested for this element by VE3, who asserted that training sessions and workshops are important at the initial stages of SRAs creation. This provides a positive indication for partners to comprehend the needs of others during the planning of alliance project achievement, to reduce the risk of wasting time and supplying required resources immediately. Moreover, VE4 agreed with the element description with consideration of the importance of discussing everything during the creation stage of the alliance, which provides an opportunity to understand the main requirements of project implementation.

Regarding the next benefit of “*providing of necessary technology*” this was also accepted by all experts in principle. However, VE3 made a good point regarding adding “*distrust between partners*” as one of the major barriers when providing the required technological experiences within SRAs project

boundaries. While VE1 reacted enthusiastically to the details provided in this element and stated that there should be total agreement and satisfaction when sharing technological expertise during the formulation of a SRA project.

The next two benefits are “*enhancing safety abilities*” and “*quick response to problems*”, which were accepted by all four experts without any amendments, apart from a simple intervention raised by VE1 relating to the importance of preparing a proper safety programme, that can be adapted with potential risks during the implementation of a SRA project. The safety programme should be conducted during the alliance charter formulation and based on a variety of partners’ experiences in the railway industry. However, according to all the facts and opinions raised through the validation stage, the researcher can conclude that all the benefit elements are firmly established but some re-formulation is required in the strategic guidelines.

### **8.2.3 Validation of Barriers and Indicative Actions of the Behavioural Factors of Strategic Railway Alliances within the Strategic Guidelines and Framework**

The first behavioural success factor established under this group is “*trust*” and this is recommended as the main factor, which can lead a SRA towards success based on the participants points of view. Trust between partners helps to increase the desire for sharing everything within the alliance boundaries. The four experts accepted the bullet points that were provided to determine the barriers of building trust between partners and the suggested indicative actions. However, VE1 and VE4 highlighted an important issue, which was that one of the negative points for demolishing trust between partners is incompatibility of thinking and behaviours during the formation of the SRAs vision and objectives. This matter can be related to weaknesses in engaging in collaborative strategies or adopting traditional strategies which are not suitable for the advanced development of a business environment. In addition, VE2 suggested a simple alteration related to the barriers facing this factor, where opportunistic thinking exists during participation of the SRAs, as this is a big issue which affects the building of trust. If there is no desire to share the requirements, this can create challenges when attempting to obtain agreement of the alliance charter.

The next behavioural factor “*commitment*” is considered based on the participants’ points of view as related to trust, where it has been argued that trust and commitment represent a chain and without these factors, the process of SRAs performance success can be affected completely. All four experts accepted the details relating to this factor and VE2, VE3 and VE4 all expressed that it is an important element of working collaboratively. It also relates to transparency, as commencing a SRA needs commitment to encourage the partners to conduct their tasks as one team. Furthermore, VE1 focused on establishing a



friendly environment for discussing the destiny of the alliance which can be considered appropriate for a diversity of partner backgrounds, this would help to share ideas smoothly and enhance partner commitment during the alliance implementation process.

According to the third behavioural factor “*knowledge sharing*”, three experts accepted the mind map of barriers relating to this factor. Whereas VE1 mentioned that although there is a diversity of specialisations inside an alliance, this does not mean that all knowledge should be shared between the alliance levels because sometimes it is not related to other tasks, this is considered personal ownership and would not be beneficial for others from different fields.

Based on the validation of the next behavioural factor “*understanding alliance objectives*”, all four experts were satisfied with the descriptions provided. While all agreed on the importance of achieving total agreement regarding perceptions in the alliance charter and seeking to be clear and understandable for all partners and participants at different levels of the alliance, as this matter enhances the degree of delivering the project successfully.

Relating to the fifth behavioural factor “*mutual dependency*” which is mentioned as one of the key behavioural factors in SRAs performance success, absent of this component causes massive risks in the journey of the alliance project. All experts accepted the thinking map prepared by the researcher without any comments provided.

In order to ensure the validity of the next behavioural factor “*aligned partners’ objectives*”, all partners supported and agreed the ideas supplied within the mind map. While VE2 asserted that when creating a SRA project, it is essential that partners from different backgrounds are aligned, to form a proper supply chain without the need for any support from outside the alliance. In addition, VE3 mentioned that obviously if partners introduce objectives of their own this would result in some ambiguity, and that mixing all partners’ objectives within a common alliance objective would result in failure. As they cannot all be achieved properly and smoothly, thus obstructing the alliance performance delivery.

Regarding the next behavioural factor “*non-coercive power*”, three experts agreed with the map presented and its indicative actions without any amendments. However, VE4 made a good point that is considered a barrier and should be added to the mind map, by expressing that adopting a strict environment where there is limited opportunity to discuss decisions, would negatively represent a barrier towards achieving democratic power. This negative point could be produced by adopting a traditional leadership style or inexperience during the collaboration strategies.

In terms of the next behavioural factor “*mutual communication*”, all experts accepted the description relating to this factor in principle, but VE2 added an amendment with respect to barriers affecting achievement of this factor. By explaining that following a traditional style of leadership based on what is mentioned in the guidelines several times can also affect the ability to share or exchange communication between alliance levels smoothly. Therefore, behaving in a dictatorial manner is considered an issue which negatively impacts the success of sharing communication inside an alliance and this can result in frustrating partners and conflict. In addition, VE1 raised another issue which could impact on the flexibility of partner communication, by mentioning that when gathering partners inside an alliance during an initial workshop or induction session it is important to take into consideration the multiplicity of partners’ backgrounds, as otherwise this can lead to poor communication channels within the strategic alliance.

Regarding another behavioural factor “*constructive conflict*”, VE3 made some corrections related to barriers of this factor, stating that the diversity of partners’ backgrounds inside a SRA is important. VE1 added that using a dictatorial climate via the leadership team and not providing opportunities for others to discuss the alliance plans, are extremely negative challenges when developing this behaviour. While VE4 and VE2 jointly agreed that the management team should be focused on developing and encouraging brainstorming sessions, which can be considered as fundamental for accelerating the delivery of SRAs plans successfully.

The next behavioural factor is “*openness to challenge*”, all four experts accepted the description relating to this factor in principle without any extra comments mentioned.

With regards to the validity of the “*training*” factor, three experts accepted the description that was provided in the guidelines relating to this factor. However, VE1 made an amendment regarding barriers that impact the effectiveness of training sessions, by explaining that opportunistic behaviour might not be considered an issue but a lack of commitment and distrust between alliance partners is considered one of the main challenges, that can hamper the success of training workshops. While, VE4 accepted the details relating to this factor by concentrating on the role of informal relationships between partners, asserting that success in any organisational system should begin through development of relationships between staff at the same level, then across the entire organisational level. Whilst understanding the needs and desires of participants and reaching the point of behavioural satisfaction are fundamental indications showing the path of alliance project success.

The next stage of validation is related to the “*teamwork*” factor, all experts accepted the information provided in the mind map. While VE2 and VE4 offered some alterations regarding barriers and advised changing the terminology of “*undemocratic environment*” to “*dictatorial environment*” to match with the words mentioned within the guidelines related to this matter. VE4 also concentrated on the importance of developing informal relationships, as mentioned in the previous factor, and its crucial role in alliance success.

The next factor is “*selection right partners*”, all experts agreed on changing two things, first changing the terminology of “*undemocratic environment*” to “*dictatorial environment*”. Second, changing the barrier of “*possibility of presence of opportunistic behaviour*” to “*adopting a traditional leadership style*”, because they were unsure regarding the presence of opportunistic behaviour during this stage, and recommended that it is more suitable to say ‘*adopting traditional leadership styles*’ instead. Also, a lack of democratic decisions and healthy discussion during the initial stages of selecting the right candidates to be partners are the main reasons for a poor leadership style to be adopted.

Based on the validation of the next two factors “*partners interaction*” and “*aligned partners’ visions*”, all four experts accepted the details relating to these two factors in principle without any comments. However, a small amendment was suggested similarly to the previous corrections which was to change the terminology of “*undemocratic environment*” to “*dictatorial environment*”.

The next behavioural factor is “*behavioural accommodation*”. VE2 and VE3 accepted the map related to this factor emphasising the importance of enhancing and developing relationships between partners for integration. Also training sessions are considered as one of the essential means to encourage participants to interact and socialise within the alliance process. However, VE1 and VE4 suggested carrying out some amendments to the barrier map, where they commented that it should also include “*variety of perceptions*” and “*unclear strategic alliance charter*” as there is no attention paid with respect to the objectives of partners when the charter is designed. In addition, the removal of “*conflict*” was recommended from this map, because conflict is considered as an outcome to insufficient behavioural accommodation.

In terms of validation of the next two factors “*leadership*” and “*opportunistic behaviour*”, all four experts accepted the descriptions related to these factors without any comments. Although VE2 offered a valid point regarding the barriers map related to the opportunistic behaviour factor, by suggesting the removal of “*seeking to steal tacit knowledge and valuable resources*” because this has a similar meaning to the second barrier of “*seeking to feed up self-interests*” and so the details of these two points should be

mixed together. Accordingly, all these amendments will be added to and represented in the strategic guidelines and framework.

### 8.2.4 Validation the Stage of Enhancement of the Indicators of Strategic Railway Alliances Performance Via Behavioural Factors

In section 7.4.4 the researcher has not located any potential modifications to be undertaken relating to this stage nor will any new modifications for the final strategic guidelines and framework be added. The only concern identified by VE3 was regarding the factor of “*training*” in the performance indicator of “*achieving profit*”, as there is no relationship between making profit and training sessions, and the perspective of training is different to the perspective of gaining profit. Nevertheless, the researcher has decided to keep “*training*” as an enhancement behavioural factor for this performance indicator. Furthermore, the role of training is quite important, as it assists partners and participants to establish skills and strategies for dealing with alliance implementation issues whilst achieving a high level of profits at the lowest costs.

### 8.3 Refinement of Strategic Guidelines and Final Framework

Based on the amendments given to the researcher during the conducting of research, the opinions provided via the validation stage will be taken into consideration before presenting the final strategic guidelines and framework. Table 8-2 below illustrates the main corrections that should be applied within the guidelines and its positions.

**Table 8-2 Refinement of a Strategic guidelines and Framework**

Stages of Strategic guideline and Framework	Factors	Removed Barriers/ Variables	Added Barriers/ Variables/ Indicative Actions
<b>Motivations of strategic railway alliances</b>	Access to partner competences	✘	- Ambiguity of formulating objectives
	Sharing required knowledge	✘	- Distrust - Lack of relationships between partners
	Sharing delivery risks	✘	- It should establish a unit or department occupied by highly experienced participants responsible for distributing sensitive information between the alliance levels to avoid the occurrence of any problems during

			implementation of the alliance project.
	Development skills of alliance team	✘	- Selecting inexperienced partners
	Reduction cost risks	✘	✘
<b>Benefits of strategic railway alliances</b>	Enhancing the profit	✘	✘
	Enhancing partners reputation	✘	✘
	Providing necessary resources	✘	- Focus on the importance of training sessions and regular workshops particularly in the initial stage of alliance creation.
	Providing necessary technology	✘	- Distrust between partners
	Enhancing safety abilities	✘	- Concentration on the importance of preparing a proper safety programme particularly during conducting alliance charter formulation based on a variety of partners experiences.
	Quick response to problems	✘	✘
<b>Behavioural factors of strategic railway alliances</b>	Trust	✘	- incompatibility of thinking - Incompatibility of behaviours in the stage of forming strategic alliance vision and objectives. - Opportunistic thinking
	Commitment	✘	✘
	Knowledge sharing	✘	- Focus on sharing explicit knowledge not tacit knowledge between partners which is important for delivering the alliance project, because tacit knowledge considers personal ownership.
	Understanding alliance objectives	✘	- Focus on getting all partners agreement regarding the principles which are mentioned in the alliance charter.
	Mutual dependency	✘	✘

	Aligned partners' objectives		- Aggregate partners from a variety of backgrounds to help create a proper supply chain inside the alliance without any need of support from external suppliers.
	Non-coercive power	✘	- The strict environment during discussion of the alliance decisions.
	Mutual communication	✘	- Adopting a dictatorial leadership style that impacts the ability to exchange communication between the alliance levels properly.
	Constructive conflict	✘	- The dictatorial climate inside the alliance prevents any chance of discussing the alliance plans.
	Openness to challenge	✘	✘
	Training	- Opportunistic behaviour	- Distrust and lack of commitment
	Teamwork	- Undemocratic environment	- Dictatorial environment
	Selecting right partners	- Undemocratic environment - Possibility of presence opportunistic behaviour	- Dictatorial environment - Adopting traditional leadership style
	Partners interaction	✘	✘
	Aligned partners' visions	- Undemocratic environment	- Dictatorial environment
	Behavioural accommodation	✘	- Variety of perceptions and unclear strategic alliance charter
	Leadership	✘	✘
	Opportunistic behaviour	- Seeking to steal tacit knowledge and valuable resources	- The presence of self-interest by entering an alliance and seeking to obtain tacit knowledge and tangible and intangible resources unfairly is a sign of opportunistic behaviour.
<b>Indicators of strategic railway alliances performance</b>	Achieving goals	✘	✘
	Achieving profit	✘	✘
	Reputation	✘	✘
	Behavioural satisfaction	✘	✘

In respect of refinement of the final framework, all interviewees in the validation stage have accepted the design of the framework without any changes. In addition, their responses were quite positive regarding the questions of whether the framework is achievable, understandable and beneficial for SRAs. Therefore, all interviewees were satisfied with all characteristics and the illustration of the framework and indicated that it is applicable to be implemented in the railway sector and in business alliances in general. Ultimately, all changes determined in the strategic guidelines and framework by the validation stage, are clearly provided in the previous sections of the guidelines and framework and are marked clearly in red (see sections 7.4).

#### **8.4 Chapter Summary and the Link**

This chapter revealed the process and procedures of the validation of the research that is conducted to ensure the credibility of the research findings. All refinements suggested by the experts were presented in this chapter clearly and marked in the original sections of the strategic guidelines and extended framework. Given that, the next chapter presents the conclusion of the current research with recommendations.

## Chapter 9 Conclusions

### 9.1 Introduction

In consideration of fulfilling the aim and objectives of this research, this chapter attempts to draw conclusions based on the research findings extracted in Chapter 6, as well as providing substantial contributions to SRAs practices and literature. The purpose of this research is to propose strategic guidelines and a framework, which can be used to evaluate the impact of behavioural factors on the performance of SRAs in the UK. This chapter is divided into four main sections, with the first section presenting a synthesis of the research findings and objectives. The second section illustrates the research contribution to theory and practice. The third section displays the research limitations and scope of the research. Finally, the final section discusses recommendations for future research.

### 9.2 Synthesis on Research Findings

The aim of this research, as presented in Chapter 1, was to develop strategic guidelines and a framework for SRAs in the UK, that can be used to evaluate the impact of behavioural factors on performance. This research attempts to add to the available existing literature, by offering further guidance for SRAs through the development of strategic guidelines and a framework. The overall research aim has been achieved by comprehensively investigating four research questions (see section 1.3) and research objectives (see section 1.4.2). This has been realised through the conducting of an extensive and detailed literature review, interviews with experts and a questionnaire survey. The following sections outline a summary of the key research findings and how each objective has been fulfilled.

#### **9.2.1 Objective 1 & Objective 2: Explore the strategic alliance concept and how they are utilised in the railway Sector in the UK & Critically review literature on SRAs behaviours.**

These objectives were framed to explore and understand the concept and processes of a strategic alliance and its importance within the railway sector in the UK. Without fully understanding the nature and function of this strategy and its management lifecycle, it would be difficult to realise the essential mechanisms and principles of strategic alliances. Therefore, an intensive review of collaboration literature was conducted, specifically regarding SRAs in the UK. After reviewing the literature, a solid foundation and understanding was formed, which presented cohesive grounds for the research and its objectives. Furthermore, an exploration of the main theories that concentrated on the importance of strategic alliance



adoption and management was carried out. During the process of the literature review in Chapters 1 and 2, several gaps and challenges were identified, which enabled a deeper understanding and insight into the subject. Noticeably, a level of dissatisfaction between collaborated partners was identified, which could threaten the lifecycle of a collaboration and result in a range of BNFs such as conflict, poor mutual communication, opportunistic behaviour, unaligned partner objectives, distrust, and a lack of commitment. Furthermore, it became apparent that management teams and academics had limited comprehension of the drivers behind the performance of successful railway collaborations. Equally, there is criticism of the studies that had been conducted to determine the reasons for collaboration failure, thus advocating more clarification and investigation into the gaps and issues mentioned in detail in section 1.2. Consequently, the absence of specific literature with regards to SRAs and behavioural factors in the UK motivated the researcher to carry out an appropriate level of investigation through available source techniques to highlight any possible misunderstandings.

Therefore, in order to achieve the research objective of exploring strategic alliance concept and addressing the identified literature gaps related to railway collaboration in the UK, expert interviews and questionnaire surveys were used. The findings were collated from interview sessions conducted with chosen experts in the field and revealed that understanding of strategic alliance concept was limited and required further clarification, as most of the interviewees explained that they had not previously been involved within a strategic alliance. This lack of participant knowledge regarding alliances is because the railway sector has tended to adopt different collaboration strategies to implement and fulfil projects. In addition, an analysis in section 5.3.1.4, identified that participants involved within strategic alliances especially at the middle and operational levels are more aware and knowledgeable of strategic alliances than those at the top of the management teams. The results indicated that the capability of these participants to recognise what behaviours should be adopted and undertaken to achieve strategic alliance performance successfully is evident.

### **9.2.2 Objective 3: Discover the main motivations and benefits for the SRAs in the UK.**

The reason for this objective was to identify the main motivations and benefits of SRAs and determine how efforts can be directed to reach full potential. Some of these motivations and benefits were identified using a literature review and then other ones have been added and supported by conducting semi-structured interviews and questionnaire surveys within a case study boundary. The main findings related to the current objective were discussed extensively in Chapters 2, 4, 5 and 6, they are also briefly summarised below.

The results gained through a review of the existing literature and an analysis of the opinions revealed that motivations and benefits differ depending on the specific context and type of strategic alliance. The findings illustrated that; access to partners' competences, sharing required knowledge, reduction of cost risks and developing skills of alliance team, were all represented as motivations behind the creation of a SRA. Likewise, enhancing reputation and safety abilities, quickly responding to problems, providing of necessary resources, enhancing profit and providing of necessary technological experience, were all given as represented benefits, that can be realised by entering SRAs.

Based on the findings, acquisition of skills and knowledge were considered as critical motivators, that partners seek to gain from alliances. The matter of sharing or exchanging knowledge inside the boundaries of an alliance are key motivation that enable the development of participants and offer perceived advantages within a competitive environment. Furthermore, contemporary orientation in organisational strategies concentrates on gathering participants within an integrated organisational system to facilitate the building of a unified environment and enhance abilities to share skills during work implementation. The inspiration for entering a strategic alliance is also aimed at preventing incurring costs, due to sharing them as opposed to working alone, which was one of the most important motivators involved in the creation of a strategic alliance.

Responses related to the benefits of engaging within strategic alliances revealed that organisations firstly seek to gain and increase their profit by participating in alliance teamwork. But they also benefit from being a partner as it means enhancement of market position and the support and bolstering of a partners' reputation, which aids the formation of new alliance projects in the future. Furthermore, it offers the provision of required resources and developed technology, which are considered a fundamental benefit of conducting strategic alliances. In terms of safety, a successful alliance performance and the ability to implement an alliance strategy for further projects, cannot be achieved unless programme safety has completely passed. Therefore, the transference of experiences and skills in developing a successful safety programme are perceived as essential. Moreover, the sharing of learning strategies for dealing with risks and implementation problems are main requirements for participating in a strategic alliance.

Although there are several similar research findings related to the motivations and benefits of SRAs, a critical analysis identified that categorisation was perceived as different to those provided through the literature review. Therefore, it is advised that more efforts are required to investigate the roles and importance of these elements in delivering alliance projects successfully.

### **9.2.3 Objective 4: Identify and evaluate behavioural success factors and behavioural negative factors impacting the performance of SRAs in the UK.**

This objective was designed to identify, verify and validate the BSFs and BNFs that impact on the performance of SRAs in the UK. Some of these factors were identified using an extensive literature review, and the rest of these factors were identified using semi-structured interviews and questionnaire surveys. The findings of this objective are discussed in Chapter 4, Chapter 5 and Chapter 6.

To implement a proper evaluation of the negative and successful behavioural factors, a comprehensive review of the literature was conducted. After a review of several studies in the literature, that were both global and national, a number of good practices for exploring BSFs and BNFs were identified (see Table 2-3). To achieve appropriate evaluation, the identified factors were categorised into two groups (behavioural success factors, behavioural negative factors) during design of the interview questions (see APPENDIX 1), and questionnaire survey (see APPENDIX 2). The interview sessions were intended to explore the behavioural factors in detail as no study had previously attempted to explore this phenomenon in relation to the railway industry in the UK. Then, the questionnaire survey was designed appropriately to be conducted as a second stage of research in order to confirm and validate the findings and level of importance of these factors within the implementation of a strategic alliance.

The aim of conducting semi-structured interviews and utilising a questionnaire survey was to obtain an insight into the dynamics of behaviours during the implementation of a strategic alliance in the railway sector in the UK. A single holistic case study strategy was adopted along with these two data collection techniques. As conducting triangulation in data collection (*literature review, semi-structural interview and questionnaire survey*) enhances the possibility of gaining valuable and comprehensive findings.

Based on the findings of this research, seventeen BSFs emerged from both the primary and secondary data (see section 6.3). Eleven of these behavioural success factors appeared during investigation of the secondary data, namely; trust, commitment, mutual communication, knowledge sharing, mutual dependency, partners' interaction, leadership, understanding alliance objectives, aligned partners' objectives, aligned partners' visions, and teamwork. While, the rest of the BSFs emerged during exploration of primary data, namely; non-coercive power, training, openness to challenge, selection of the right partners, constructive conflict and behavioural accommodation.

Four BNFs were identified during the literature review, namely; destructive conflict, opportunistic behaviour, distrust and lack of mutual communication. In addition, six BNFs emerged from the collection

of the primary data and included; coercive-power, misunderstanding the alliance objectives, lack of commitment, lack of knowledge sharing, lack of mutual dependency and unaligned partners' objectives. Once all the BSFs and BNFs were identified, a conceptual framework was established. Crucially, the development of this conceptual framework was considered beneficial to evaluate the stages of performance and delivery of the SRAs successfully.

Subsequently, a series of rigorous interview sessions were conducted with top managers to intensely explore and identify more behavioural factors that impact on the performance of SRAs in the UK context. In respect of data analysis, a thematic analysis was conducted of these themes in Chapter 4. Thus, the findings of the thematic analysis helped to support and fill in the gaps of knowledge in the phenomenon under investigation and determine the main factors identified as responsible to evaluate the performance of SRAs. The findings of the qualitative approach enhanced the researcher's efforts to design the questionnaire survey in the second stage of data collection. Even though the questionnaire survey provided information regarding the main themes of research (see APPENDIX 2), it was important to obtain a breadth of information from a large sample size. Therefore, a quantitative approach was utilised with 73 participants from both the middle and operational levels of the SRA under study. Moreover, the use of a sequential mixed-method research approach helped to improve triangulation, reliability and validity.

Furthermore, with regards to analysis of the findings, an Chi-Square test analysis (see sections 5.4.2.2, 5.4.2.6 and 5.4.3.2) was used to evaluate the variance between the observed value and the actual data of the factors investigated. While a KWT analysis was applied to examine the relationships between all the factors in each section of the conceptual framework, with the significant differences identified in sections 5.4.2.3.1, 5.4.2.7 and 5.4.3.3). Use of a KW test was essential to validate and confirm the whole factors in each section. Subsequently, all factors identified in all sections which formed the SRA framework were validated. Whilst, all the findings that emerged from both the qualitative and quantitative chapters in Chapter 5 and Chapter 4 were discussed based on each theme and factor. Thus, development of the framework was finalised into four main sections and confirmed through discussion of the qualitative and quantitative findings in Chapter 6. Therefore, the third objective was achieved successfully based on the chapter of the findings.

#### **9.2.4 Objective 5: Develop a framework and strategic guidelines for enhancing the performance of SRAs.**

This objective was targeted to achieve plausible guidelines that would offer solutions and guidance on how to combat the BNFs that occur in SRAs, whilst enhancing alliance performance through the

empowerment of successful behavioural factors. The achievement of this objective was gained through the organisation of fundamental research findings in a structured format that could be easily and essentially used by top management. The findings which helped to achieve this objective are provided in Chapter 7.

A framework and strategic guidelines were developed based on the main established and validated themes and factors that had emerged from the research findings (motivations, benefits, BSFs, BNFs, and indicators of SRAs performance), whilst the barriers and indicative actions were determined on the performance life-cycle of an alliance. The content of the guidelines and framework are based on validated and confirmed data collected through interviews and questionnaires carried out with chosen experts in the railway sector. The design of the framework was improved and developed after the previous version mentioned in objective 3 above, which was based on the literature review. As a result, the final version of the framework was designed and developed based on four groups which were represented as the main themes. Subsequently, group 1 consisted of the barriers and indicative actions relating to the motivations of SRAs, group 2 demonstrated the barriers and indicative actions of SRAs benefits, group 3 described the barriers and indicative actions of SRAs behavioural factors and group 4 explained the enhancement of actions for SRAs performance indicators via successful behavioural factors.

The final strategic guidelines and a framework were refined and developed through validation stage. Therefore, as the current objective has been achieved, it can be considered that the aim of this research has been fulfilled.

### **9.3 Research Contribution**

The outcome of this research contributes to enhancing the railway management body of knowledge for railway management through a variety of aspects, that have been classified into three main areas and will be discussed accordingly.

#### **9.3.1 Contribution to Theory**

Although there is a wealth of knowledge on SAs in developed and developing countries and in a variety of industries, there is a scarcity of literature regarding the phenomenon under study in the context of the UK railway sector. Therefore, this research contributes to existing SRAs literature, specifically for the UK railway sector in keeping with the Business Plan of Railway Networking for 2019 - 2024 for establishing SRAs and acquiring their benefits. The attempting of this research to explore the phenomenon with the absence of attempts to explore the impact of behavioural factors on performance of SRAs in the UK, Therefore, this research provides a deeper understanding of the UK's SRAs dynamics and

implementation of the decision-making process, as well as offering a significant contribution to knowledge in this area. Hence, enabling and enhancing the building of skills capabilities and offering solutions and strategic guidelines that are related to a diversity of behaviours.

According to the research outcomes and their contribution to SRAs literature, the designed strategic guideline and framework will provide a comprehensive understanding motivations and benefits of establishing SRAs and the role and impact of behavioural factors when implementing any alliance and will assist in bridging the research gaps through contribution of lessons learned and to the knowledge pool of Railway Networking leaders. The significance of this research is that it will add to an existing body of knowledge through the adoption of a methodological case study strategy, as described in detail in Chapter 3.

### **9.3.2 Contribution to Practice**

Conducting this research has contributed to practice in SRAs in the UK. The exploration of this research helped to identify both BSFs and BNFs, and the impact of behavioural barriers on SRAs performance, in addition to the provision of indicative actions and developments for successful delivery. According to the research findings, the strategic guidelines and framework will enhance the success of SRAs performance in the UK and will be beneficial for governments, organisations, clients and academics, by enabling awareness of the role of BSFs, motivations and benefits, whilst recognising and offering solutions to overcoming BNFs and barriers that could lead to failure, thus minimising risks. In addition, it could provide benefits for non-governmental and non-business organisations to determine the best practices for designing an alliance properly and implementing it successfully.

Accordingly, the findings of this research demonstrate the significance of selection of the right partners, who are highly experienced within SAs, as availability of these characteristics will add strength and positive trends in the implementation stages. Furthermore, application of the proposed guidelines and framework principles will enhance the capability of recognising and identifying behaviours that could occur would engage within an alliance, whilst aiding determination of steps towards confronting the impact of BNFs in order to deliver an alliance project efficiently, effectively and prosperously.

Consequently, to create an appropriate SA, the behavioural factors, motivations and benefits identified in this research, should be carefully considered to achieve alliance performance success. In addition, considering the proposed guidelines and framework, will ensure that organisations are aware of the needs, skills, behaviours and targeted partners required to enhance the process of alliance implementation. Whilst minimising and combating the amount of failures that currently take place in the railway sector through

use of the validated strategic guidelines and framework, recognised by several experienced experts in the railway sector in the UK. Thus, offering the possibility of adoption or adaptation of these research findings during the creation, implementation, management and evaluative stages of SRAs projects in the UK. As well as in different contexts as a strategic guide, such as similarly developed countries that aim to target and conduct alliance projects or developing countries that may require guidance and appropriate steps to follow in the initial stages of implementation and creation.

#### **9.4 Limitations of the Study**

Although the aim and objectives of this research were achieved, and evidence was collected via multiple sources, a case study was selected and a case study strategy followed a structured protocol to maintain and ensure the validity and rigour of this research, it is noted that a number of limitations were encountered during the time of conducting the research process. These limitations are highlighted in order to provide a clearer picture of the work that has been achieved. The limitations encountered during this research are detailed below:

1. Data was collected via semi-structured interviews and a questionnaire survey with experts. However, the interview responses were mostly context-specific and reflected subjective perspectives according to the experience of the participants (experts). Therefore, the interview responses were validated and confirmed using a questionnaire survey to overcome this limitation. Furthermore, the strategic guidelines and final framework of this research was validated based on a series of semi-structured interviews with experts. While, the applicability and practicality of the strategic guidelines and framework remain untested at this stage, as it is beyond the scope of this research.
2. The research problem/ area was confined to the UK, with all the data collected being UK specific. Even though the findings from the theoretical literature review and published studies show that several of the behavioural issues are faced by developed countries, which have much in common, including some of the serious behavioural barriers as identified in the UK's strategic railway alliances. The findings of this research can only be generalised and are subject to a specific context.

#### **9.5 Proposed Subjects for Further Research**

Further research could be conducted to build a solid foundation based on the outcomes of this research to further enhance knowledge in SAs. The following suggestions are provided for future areas of work.

1. *Similar researches with a different research approach.*

The current research was conducted through the adoption of an exploratory sequential mixed-methods design approach of qualitative then quantitative techniques, which offers a fundamental step for other researchers to build upon their potential research through the adoption and using Delphi technique. This design will enable the researchers to critically explain and examine behavioural factors related to the strategic railway alliance framework.

2. *Similar researches with different case study*

The case study adopted in this research was a strategic railway alliance (Northern Hub Alliance) in the UK. However, future research could be undertaken in different sectors such as the business, medical, energy fields and so for.

3. *Similar researches with different contexts.*

The adoption of a strategic alliance strategy has become an evident reality not only in developed countries but throughout the world. Therefore, efforts represented by future research could be carried out in developing countries and the Middle East particularly.

4. *Exploration of behavioural characteristics*

The proposed guidelines and framework for strategic construction alliances highlights key BSFs, BNFs, motivations and benefits. While future efforts could focus on exploration of the behavioural characteristics that should exist in a strategic alliance leadership team.

## **9.6 Concluding Note**

A primary summary concluding this research has been provided in all sections of this chapter, where it was demonstrated that the main aim and structured objectives had been achieved. The substantial outcomes of this research are strategic guidelines and a relevant framework, which aid identification and evaluation of the impact of successful and negative behavioural factors and their impact on the performance of SRAs in the UK. This research also described the main motivations and benefits of entering a SA. Thus, the current research has positively contributed to the existing body of knowledge, theory and practice of SRAs. Although several limitations were identified during the process of conducting the research, the researcher has placed great effort on alleviating their consequences.



Ultimately, the outcomes of this research open the door for future research areas, in terms of context, focus and implementation.

## REFERENCES

- AB TALIB, M. S., ABDUL HAMID, A. B. & THOO, A. C. 2015. Critical success factors of supply chain management: a literature survey and Pareto analysis. *EuroMed Journal of Business*, 10, 234-263.
- ABDUL NIFA, F. 2013. *Development of a framework for partnering through aligning organizational cultures in the Malaysian construction industry*. University of Salford.
- ADNAN, H., JUSOFF, K. & SALIM, M. 2008. Risk management in design and builds on construction projects in Malaysia. *ICCBT*, 4, 39-50.
- AFONSO VIEIRA, V., MONTEIRO, P. R. & TEIXEIRA VEIGA, R. 2011. Relationship marketing in supply chain: an empirical analysis in the Brazilian service sector. *Journal of Business & Industrial Marketing*, 26, 524-531.
- AGARWAL, R., CROSON, R. & MAHONEY, J. T. 2010. The role of incentives and communication in strategic alliances: an experimental investigation. *Strategic Management Journal*, 31, 413-437.
- AGGERI, F. & SEGRESTIN, B. 2007. Innovation and project development: an impossible equation? Lessons from an innovative automobile project development. *R&D Management*, 37, 37-47.
- AKHAVAN, P., BARAK, S., MAGHSOUDLOU, H. & ANTUCHEVIČIENĖ, J. 2015. FQSPM-SWOT for strategic alliance planning and partner selection; case study in a holding car manufacturer company. *Technological and Economic Development of Economy*, 21, 165-185.
- AKHTAR, P., KHAN, Z., RAO-NICHOLSON, R. & ZHANG, M. 2016. Building relationship innovation in global collaborative partnerships: big data analytics and traditional organizational powers. *R&D Management*.
- AKİNER, İ. & YITMEN, I. 2011. International strategic alliances in construction: Performances of Turkish contracting firms.
- AKINTOYE, A., MCINTOSH, G. & FITZGERALD, E. 2000. A survey of supply chain collaboration and management in the UK construction industry. *European journal of purchasing & supply management*, 6, 159-168.
- ALBANESE, R. & HAGGARD, R. 1993. *Team building: improving project performance*, The Institute.
- ALKHURAJI, A., LIU, S., ODERANTI, F. O. & MEGICKS, P. 2016. New structured knowledge network for strategic decision-making in IT innovative and implementable projects. *Journal of Business Research*, 69, 1534-1538.
- ALMAIAN, R. Y., NEEDY, K. L., WALSH, K. D. & ALVES, T. D. C. 2015. Supplier quality management inside and outside the construction industry. *Engineering Management Journal*, 27, 11-22.
- AMOATEY, C. T., AMEYAW, Y. A., ADAKU, E. & FAMIYEH, S. 2015. Analysing delay causes and effects in Ghanaian state housing construction projects. *International Journal of Managing Projects in Business*, 8, 198-214.
- ANALYST, A. 1996. *Managing alliances: Skills for the modern era*. Philadelphia: PA.
- ARCHER, N. P., KUMAR, V., FANTAZY, K. A., KUMAR, U. & BOYLE, T. A. 2006. Implementation and management framework for supply chain flexibility. *Journal of Enterprise Information Management*, 19, 303-319.
- ARGYRES, N. & MAYER, K. J. 2007. Contract design as a firm capability: An integration of learning and transaction cost perspectives. *Academy of Management Review*, 32, 1060-1077.

- ARGYRES, N. S., BERCOVITZ, J. & MAYER, K. J. 2007. Complementarity and evolution of contractual provisions: An empirical study of IT services contracts. *Organization Science*, 18, 3-19.
- ARIÑO, A. 2003. Measures of strategic alliance performance: An analysis of construct validity. *Journal of international Business studies*, 34, 66-79.
- ARRANZ, N. & DE ARROYABE, J. C. F. 2008. The choice of partners in R&D cooperation: An empirical analysis of Spanish firms. *Technovation*, 28, 88-100.
- ASHNAI, B., HENNEBERG, S. C., NAUDÉ, P. & FRANCESCUCCHI, A. 2016. Inter-personal and inter-organizational trust in business relationships: An attitude-behavior-outcome model. *Industrial Marketing Management*, 52, 128-139.
- AULAKH, P. S., KOTABE, M. & SAHAY, A. 1996. Trust and performance in cross-border marketing partnerships: A behavioral approach. *Journal of international business studies*, 1005-1032.
- AWARDS, T. R. 2019. *NORTHERN HUB ALLIANCE* [Online]. Available: [https://www.railstaffawards.com/event/2019/nominees/northern-hub-alliance/5204?award\\_id=247](https://www.railstaffawards.com/event/2019/nominees/northern-hub-alliance/5204?award_id=247).
- AXELROD, R. & KEOHANE, R. O. 1986. Achieving cooperation under anarchy: Strategies and institutions. *World Politics: A Quarterly Journal of International Relations*, 226-254.
- AXELROD, R. M. 1984. *The evolution of cooperation*, New York, Basic Books.
- AXELROD, R. M. 1997. *The complexity of cooperation: Agent-based models of competition and collaboration*, Princeton, NJ, Princeton University Press.
- AYOUP, H., OMAR, N. & RAHMAN, I. 2015. Managing strategic alignment using the balanced scorecard: A Malaysian Company's experience.
- AYOUP, H., OMAR, N. & RAHMAN, I. K. A. 2016. Balanced scorecard and strategic alignment: A Malaysian case. *International Journal of Economics and Financial Issues*, 6, 85-95.
- AZEEM, M., SALFI, N. A. & DOGAR, A. 2012. Usage of NVivo software for qualitative data analysis. *Academic Research International*, 2, 262-266.
- BADIR, Y. F. & O' CONNOR, G. C. 2015. The Formation of Tie Strength in a Strategic Alliance's First New Product Development Project: The Influence of Project and Partners' Characteristics. *Journal of Product Innovation Management*, 32, 154-169.
- BALDAUF-CUNNINGTON, M. & HUBBARD, M. 2011. Key issues for the global economy and construction in 2011. *AECOM Company: Program, Cost, Consultancy [cited 10 January 2013]*. Available from Internet: [http://www.davislangdon.com/upload/StaticFiles/EME%20Publications/Other%20Research%20Publications/10\\_Key\\_Issues\\_2011.pdf](http://www.davislangdon.com/upload/StaticFiles/EME%20Publications/Other%20Research%20Publications/10_Key_Issues_2011.pdf).
- BALLIET, D. & VAN LANGE, P. A. 2013. Trust, conflict, and cooperation: a meta-analysis. *Psychological Bulletin*, 139, 1090.
- BARNETT, V. 2002. *Sample survey principles and methods*, London, Arnold.
- BARNETT, W. P. & BURGELMAN, R. A. 1996. Evolutionary perspectives on strategy. *Strategic Management Journal*, 17, 5-19.
- BARROSO-MÉNDEZ, M. J., GALERA-CASQUET, C., SEITANIDI, M. M. & VALERO-AMARO, V. 2016. Cross-sector social partnership success: A process perspective on the role of relational factors. *European Management Journal*, 34, 674-685.
- BASTIDA, R., MARIMON, F. & TANGANELLI, D. 2017. Alliance success factors and performance in social economy enterprises. *Management Decision*, 55, 1065-1080.
- BAZELEY, P. & JACKSON, K. 2013. *Qualitative data analysis with NVivo*, Sage Publications Limited.

- BEACH, R., WEBSTER, M. & CAMPBELL, K. M. 2005. An evaluation of partnership development in the construction industry. *International Journal of Project Management*, 23, 611-621.
- BECCERRA, M. & GUPTA, A. 1999. Trust Within The Organization: Integrating The Trust Literature With Agency Theory And Transaction Costs Economics. *Public Administration Quarterly*, 23, 177.
- BELLO, D. C., KATSIKEAS, C. S. & ROBSON, M. J. 2010. Does accommodating a self-serving partner in an international marketing alliance pay off? *Journal of Marketing*, 74, 77-93.
- BERGER, I. E., CUNNINGHAM, P. H. & DRUMWRIGHT, M. E. 2004. Social alliances: Company/nonprofit collaboration. *California management review*, 47, 58-90.
- BERGHMAN, L., MATTHYSSENS, P. & VANDENBEMPT, K. 2012. Value innovation, deliberate learning mechanisms and information from supply chain partners. *Industrial Marketing Management*, 41, 27-39.
- BIANCHI, C. & SALEH, A. 2010. On importer trust and commitment: a comparative study of two developing countries. *International Marketing Review*, 27, 55-86.
- BIDABADI, Z. T., HOSSEINALIPOUR, M., HAMIDIZADEH, M. R. & MOHEBIFAR, A. 2016. Supply chain collaboration within the Iranian construction industry. *Organization, Technology and Management in Construction: an International Journal*, 8, 1437-1445.
- BINDL, U. K. & PARKER, S. K. 2011. Proactive work behavior: Forward-thinking and change-oriented action in organizations. *APA handbook of industrial and organizational psychology, Vol 2: Selecting and developing members for the organization.*: American Psychological Association.
- BLACK, C., AKINTOYE, A. & FITZGERALD, E. 2000. An analysis of success factors and benefits of partnering in construction. *International Journal of Project Management*, 18, 423-434.
- BLACKSTONE, A. 2016. *Principles of Sociological Inquiry—Qualitative and Quantitative Methods*.
- BOONE, H. N. & BOONE, D. A. 2012. Analyzing likert data. *Journal of extension*, 50, 1-5.
- BORCH, O. J. & SOLESVIK, M. Z. 2016. Partner selection versus partner attraction in R&D strategic alliances: the case of the Norwegian shipping industry. *International Journal of Technology Marketing*, 11, 421-439.
- BOUNCKEN, R. B., PESCH, R. & GUDERGAN, S. P. 2015. Strategic embeddedness of modularity in alliances: Innovation and performance implications. *Journal of Business Research*, 68, 1388-1394.
- BOUNCKEN, R. B., PLÜSCHKE, B. D., PESCH, R. & KRAUS, S. 2014. Entrepreneurial orientation in vertical alliances: joint product innovation and learning from allies. *Review of Managerial Science*, 10, 381-409.
- BOYER, E. J. 2016. Identifying a knowledge management approach for public-private partnerships. *Public Performance & Management Review*, 40, 158-180.
- BRAUN, V. & CLARKE, V. 2006. Using thematic analysis in psychology. *Qualitative research in psychology*, 3, 77-101.
- BRISCOE, G. H., DAINTY, A. R., MILLETT, S. J. & NEALE, R. H. 2004. Client-led strategies for construction supply chain improvement. *Construction Management and Economics*, 22, 193-201.
- BRONDER, C. & PRITZL, R. 1992. Developing strategic alliances: a conceptual framework for successful co-operation. *European Management Journal*, 10, 412-421.
- BRYMAN, A. 2015. *Social research methods*, Oxford Oxford University Press.
- BRYMAN, A. & BELL, E. 2007. Business research strategies. *Business research methods*.

- BULMER, M. 2004. *Questionnaires, Sage Benchmarks in Social Science Research Methods*, London, SAGE.
- BÜYÜKÖZKAN, G., FEYZIOĞLU, O. & NEBOL, E. 2008. Selection of the strategic alliance partner in logistics value chain. *International Journal of Production Economics*, 113, 148-158.
- CACAMIS, M. E. & EL ASMAR, M. 2014. Improving project performance through partnering and emotional intelligence. *Practice Periodical on Structural Design and Construction*, 19, 50-56.
- CARACELLI, V. J. & GREENE, J. C. 1997. Crafting mixed-method evaluation designs. *New directions for evaluation*, 1997, 19-32.
- CARSON, S. J., MADHOK, A. & WU, T. 2006. Uncertainty, opportunism, and governance: The effects of volatility and ambiguity on formal and relational contracting. *Academy of Management Journal*, 49, 1058-1077.
- CASEY, M. 2008. Partnership–success factors of interorganizational relationships. *Journal of nursing management*, 16, 72-83.
- CASSELL, C. & SYMON, G. 2004. *Essential guide to qualitative methods in organizational research*, London, Sage.
- CAVUSGIL, S. T., DELIGONUL, S. & ZHANG, C. 2004. Curbing foreign distributor opportunism: An examination of trust, contracts, and the legal environment in international channel relationships. *Journal of International Marketing*, 12, 7-27.
- CELLY, K. S. & FRAZIER, G. L. 1996. Outcome-based and behavior-based coordination efforts in channel relationships. *Journal of marketing research*, 200-210.
- CHAN, A. P., CHAN, D. W., CHIANG, Y. H., TANG, B.-S., CHAN, E. H. & HO, K. S. 2004. Exploring critical success factors for partnering in construction projects. *Journal of construction engineering and management*, 130, 188-198.
- CHAN, C. T. 2017. Mitigation of Construction Disputes through Relational Contracting in Public Projects in Hong Kong. *CONSTRUCTION PROJECTS*, 137.
- CHAN, I. Y., LIU, A. M. & FELLOWS, R. 2014. Role of leadership in fostering an innovation climate in construction firms. *Journal of management in engineering*, 30, 06014003.
- CHAN, S. H., KENSINGER, J. W., KEOWN, A. J. & MARTIN, J. D. 1997. Do strategic alliances create value? *Journal of Financial Economics*, 46, 199-221.
- CHANG, H. H. 2006. An empirical evaluation of performance measurement systems for total quality management. *Total Quality Management*, 17, 1093-1109.
- CHANG, H. H., CHUANG, S.-S. & CHAO, S. H. 2011. Determinants of cultural adaptation, communication quality, and trust in virtual teams' performance. *Total Quality Management & Business Excellence*, 22, 305-329.
- CHANG, W.-L. & LEE, C.-Y. 2012. Trust as a learning facilitator that affects students' learning performance in the Facebook community: An investigation in a business planning writing course. *Computers & Education*, 62, 320-327.
- CHAO, Y.-C. 2011. Decision-making biases in the alliance life cycle: implications for alliance failure. *Management decision*, 49, 350-364.
- CHE IBRAHIM, C. K. I., COSTELLO, S. B. & WILKINSON, S. 2014. Development of an assessment tool for team integration in alliance projects. *International Journal of Managing Projects in Business*, 8, 813-827.
- CHE IBRAHIM, C. K. I., COSTELLO, S. B. & WILKINSON, S. 2015. Key indicators influencing the management of team integration in construction projects. *International Journal of Managing Projects in Business*, 8, 300-323.
- CHEN, G., ZHANG, G., XIE, Y.-M. & JIN, X.-H. 2012. Overview of alliancing research and practice in the construction industry. *Architectural Engineering and Design Management*, 8, 103-119.

- CHEN, H.-M. & TSENG, C.-H. 2005. The performance of marketing alliances between the tourism industry and credit card issuing banks in Taiwan. *Tourism Management*, 26, 15-24.
- CHEN, H. & CHEN, T.-J. 2002. Asymmetric strategic alliances: A network view. *Journal of Business Research*, 55, 1007-1013.
- CHEN, H. & XIE, F. 2018. How technological proximity affect collaborative innovation? An empirical study of China's Beijing–Tianjin–Hebei region. *Journal of Management Analytics*, 1-22.
- CHEN, J., KING, T.-H. D. & WEN, M.-M. 2015. Do joint ventures and strategic alliances create value for bondholders? *Journal of Banking & Finance*, 58, 247-267.
- CHEN, J. V., YEN, D. C., RAJKUMAR, T. & TOMOCHKO, N. A. 2011. The antecedent factors on trust and commitment in supply chain relationships. *Computer Standards & Interfaces*, 33, 262-270.
- CHEN, P.-Y., CHEN, K.-Y. & WU, L.-Y. 2017. The impact of trust and commitment on value creation in asymmetric buyer–seller relationships: the mediation effect of specific asset investments. *Journal of Business & Industrial Marketing*, 32, 457-471.
- CHEN, S.-F. S. & HENNART, J.-F. 2004. A hostage theory of joint ventures: why do Japanese investors choose partial over full acquisitions to enter the United States? *Journal of Business Research*, 57, 1126-1134.
- CHEN, Y.-C., LI, P.-C. & ARNOLD, T. J. 2013. Effects of collaborative communication on the development of market-relating capabilities and relational performance metrics in industrial markets. *Industrial Marketing Management*, 42, 1181-1191.
- CHENG, E. W. & LI, H. 2001. Development of a conceptual model of construction partnering. *Engineering, Construction and Architectural Management*, 8, 292-303.
- CHENG, E. W. & LI, H. 2002. Construction partnering process and associated critical success factors: quantitative investigation. *Journal of management in engineering*, 18, 194-202.
- CHENG, E. W., LI, H. & LOVE, P. 2000. Establishment of critical success factors for construction partnering. *Journal of management in engineering*, 16, 84-92.
- CHEUNG, S.-O., NG, T. S., WONG, S.-P. & SUEN, H. C. 2003. Behavioral aspects in construction partnering. *International Journal of Project Management*, 21, 333-343.
- CHIN, K.-S., CHAN, B. L. & LAM, P.-K. 2008. Identifying and prioritizing critical success factors for coepetition strategy. *Industrial Management & Data Systems*, 108, 437-454.
- CHRISTENSON, D. & WALKER, D. H. 2004. Understanding the role of “vision” in project success. *Project Management Journal*, 35, 39-52.
- CHRISTENSON, D. & WALKER, D. H. 2008. Using vision as a critical success element in project management. *International Journal of Managing Projects in Business*, 1, 611-622.
- CHRISTOFFERSEN, J. 2013. A review of antecedents of international strategic alliance performance: synthesized evidence and new directions for core constructs. *International Journal of Management Reviews*, 15, 66-85.
- CHUNG, Q., LUO, W. & WAGNER, W. P. 2006. Strategic alliance of small firms in knowledge industries: A management consulting perspective. *Business Process Management Journal*, 12, 206-233.
- CLARK, V. P. & CRESWELL, J. W. 2011. *Designing and conducting mixed methods research*, London, Sage.
- COLIN, J. B. 2010. Internal and lateral communication in strategic alliance decision making. *Management Decision*, 48, 698-712.
- COLLINS, J. D. & HITT, M. A. 2006. Leveraging tacit knowledge in alliances: The importance of using relational capabilities to build and leverage relational capital. *Journal of Engineering and Technology Management*, 23, 147-167.

- COLLIS, J. & HUSSEY, R. 2009. A Practical Guide for Undergraduate and Postgraduate Students.
- COLLIS, J. & HUSSEY, R. 2013. *Business research: A practical guide for undergraduate and postgraduate students*, London, Palgrave Macmillan.
- COOTE, L. V., FORREST, E. J. & TAM, T. W. 2003. An investigation into commitment in non-Western industrial marketing relationships. *Industrial Marketing Management*, 32, 595-604.
- COSTA E SILVA, S., BRADLEY, F. & SOUSA, C. M. P. 2012. Empirical test of the trust–performance link in an international alliances context. *International Business Review*, 21, 293-306.
- COWIE, J. & LOYNES, S. 2012. An assessment of cost management regimes in British rail infrastructure provision. *Transportation*, 39, 1281-1299.
- COX, A., SANDERSON, J., WATSON, G. & LONSDALE, C. 2001. Power regimes: a strategic perspective on the management of business-to-business relationships in supply networks. *Proceedings of the 17th Annual IMP Conference: Interactions, relationships and networks: Strategic dimensions*, 9-11.
- CRESWELL, J. W. 2009. *Research design: Qualitative, quantitative, and mixed methods approaches*, London, Sage.
- CRESWELL, J. W. 2014. *A concise introduction to mixed methods research*, Sage Publications.
- CRESWELL, J. W. & CLARK, V. L. P. 2007. Designing and conducting mixed methods research.
- CRESWELL, J. W., FETTERS, M. D. & IVANKOVA, N. V. 2004. Designing a mixed methods study in primary care. *The Annals of Family Medicine*, 2, 7-12.
- CRESWELL, J. W., KLASSEN, A. C., PLANO CLARK, V. L. & SMITH, K. C. 2011. Best practices for mixed methods research in the health sciences. *Bethesda, MD: National Institutes of Health*, 10.
- CRESWELL, J. W. & MILLER, D. L. 2000. Determining validity in qualitative inquiry. *Theory into practice*, 39, 124-130.
- CROTTY, M. 2003. *The foundations of social research: Meaning and perspective in the research process*, London, Sage.
- CROWSTON, K. 1997. A coordination theory approach to organizational process design. *Organization Science*, 8, 157-175.
- CUI, A. S., CALANTONE, R. J. & GRIFFITH, D. A. 2011. Strategic change and termination of interfirm partnerships. *Strategic Management Journal*, 32, 402-423.
- CUI, A. S. & O'CONNOR, G. 2012. Alliance portfolio resource diversity and firm innovation. *Journal of Marketing*, 76, 24-43.
- CULPAN, R. 2002. *Global business alliances: Theory and practice*, Greenwood Publishing Group.
- CZINKOTA, M. R. & RONKAINEN, I. A. 2013. *International marketing*, Cengage Learning.
- DANIA, W. A. P., XING, K. & AMER, Y. 2018. Collaboration behavioural factors for sustainable agri-food supply chains: A systematic review. *Journal of cleaner production*, 186, 851-864.
- DAS, T. & RAHMAN, N. 2010a. Determinants of Partner Opportunism in Strategic Alliances: A Conceptual Framework. *Journal of Business and Psychology*, 25, 55-74.
- DAS, T. K. 2006. Strategic alliance temporalities and partner opportunism. *British Journal of Management*, 17, 1-21.
- DAS, T. K. & KUMAR, R. 2010. Interpartner sensemaking in strategic alliances: Managing cultural differences and internal tensions. *Management Decision*, 48, 17-36.

- DAS, T. K. & RAHMAN, N. 2010b. Determinants of partner opportunism in strategic alliances: a conceptual framework. *Journal of Business and Psychology*, 25, 55-74.
- DAS, T. K. & TENG, B.-S. 1998. Between trust and control: Developing confidence in partner cooperation in alliances. *Academy of management review*, 23, 491-512.
- DAS, T. K. & TENG, B.-S. 2000. A resource-based theory of strategic alliances. *Journal of management*, 26, 31-61.
- DAS, T. K. & TENG, B.-S. 2001. Trust, control, and risk in strategic alliances: An integrated framework. *Organization studies*, 22, 251-283.
- DAS, T. K. & TENG, B. S. 2002. The dynamics of alliance conditions in the alliance development process. *Journal of Management Studies*, 39, 725-746.
- DAVIS, P. & LOVE, P. 2011. Alliance contracting: adding value through relationship development. *Engineering, Construction and Architectural Management*, 18, 444-461.
- DAVIS, P. & WALKER, D. 2009. Building capability in construction projects: a relationship-based approach. *Engineering, Construction and Architectural Management*, 16, 475-489.
- DAVIS, P. R. & WALKER, D. H. 2003. Relationship Marketing: Providing opportunities and benefits for the Construction Industry. *International Journal of Construction Management*, 3, 69-78.
- DE MAN, A.-P. & LUVISON, D. 2014. Sense-making's role in creating alliance supportive organizational cultures. *Management Decision*, 52, 259-277.
- DE RUYTER, K., MOORMAN, L. & LEMMINK, J. 2001. Antecedents of commitment and trust in customer–supplier relationships in high technology markets. *Industrial Marketing Management*, 30, 271-286.
- DE YÉBENES PROUS, M. J. G., SALVANÉS, F. R. & ORTELLS, L. C. 2009. Validation of questionnaires. *Reumatología Clínica (English Edition)*, 5, 171-177.
- DEDY, A. N., ZAKUAN, N., BAHARI, A. Z., ARIFF, M. S. M., CHIN, T. A. & SAMAN, M. Z. M. Identifying Critical Success Factors for TQM and Employee Performance in Malaysian Automotive Industry: A Literature Review. IOP Conference Series: Materials Science and Engineering, 2016. IOP Publishing, 012016.
- DEL MAR BENAVIDES-ESPINOSA, M. & RIBEIRO-SORIANO, D. 2014. Cooperative learning in creating and managing joint ventures. *Journal of Business Research*, 67, 648-655.
- DELERUE, H. 2005. Conflict resolution mechanisms, trust and perception of conflict in contractual agreements. *Journal of General Management*, 30, 11-26.
- DENOLF, J. M., TRIENEKENS, J. H., WOGNUM, P. N., VAN DER VORST, J. G. & OMTA, S. O. 2015. Towards a framework of critical success factors for implementing supply chain information systems. *Computers in industry*, 68, 16-26.
- DENSCOMBE, M. 2010. *The good research guide: for small-scale social research projects*, London, McGraw-Hill Education (UK).
- DENSCOMBE, M. 2014. *The good research guide: for small-scale social research projects*, McGraw-Hill Education (UK).
- DEO SHARMA, D. 1998. A model for governance in international strategic alliances. *Journal of Business & Industrial Marketing*, 13, 511-528.
- DEWULF, G. & KADEFORS, A. 2012. Collaboration in public construction—contractual incentives, partnering schemes and trust. *Engineering Project Organization Journal*, 2, 240-250.
- DINNO, A. 2015. Nonparametric pairwise multiple comparisons in independent groups using Dunn's test. *Stata Journal*.



- DIONYSIOU, D. D. & TSOUKAS, H. 2013. Understanding the (re) creation of routines from within: A symbolic interactionist perspective. *Academy of Management Review*, 38, 181-205.
- DLAMINI, S. Relationship of construction sector to economic growth. International Congress on Construction Management, Canada, 2012.
- DOLOI, H. 2009. Relational partnerships: the importance of communication, trust and confidence and joint risk management in achieving project success. *Construction Management and Economics*, 27, 1099-1109.
- DONATO, M. & SHEE, H. 2015. Resource dependency and collaboration in construction supply chain: literature review and development of a conceptual framework. *International Journal of Procurement Management*, 8, 344-364.
- DOOLEY, L. M. 2002. Case study research and theory building. *Advances in developing human resources*, 4, 335-354.
- DOZ, Y. 1996. The evolution of cooperation in strategic alliances: Initial conditions or learning processes? *Strategic Management Journal*, 17, 55-83.
- DRAULANS, J. & VOLBERDA, H. W. 2003. Building alliance capability:: Management techniques for superior alliance performance. *Long range planning*, 36, 151-166.
- DUYSTERS, G. & LOKSHIN, B. 2011. Determinants of alliance portfolio complexity and its effect on innovative performance of companies. *Journal of Product Innovation Management*, 28, 570-585.
- DYER, J. H. & CHU, W. 2003. The role of trustworthiness in reducing transaction costs and improving performance: Empirical evidence from the United States, Japan, and Korea. *Organization science*, 14, 57-68.
- DYER, J. H., KALE, P. & SINGH, H. 2001. How to make strategic alliances work. *MIT Sloan management review*, 42, 37.
- DYER, J. H. & SINGH, H. 1998. The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of management review*, 23, 660-679.
- EASTERBY-SMITH, M., THORPE, R. & JACKSON, P. 2008. *Management research*. London: Sage.
- EASTERBY-SMITH, M., THORPE, R. & JACKSON, P. R. 2012. *Management research*, Sage.
- EASTERBY-SMITH, M., THORPE, R. & JACKSON, P. R. 2015. *Management and business research*, Sage.
- EASTMAN, C., TEICHOLZ, P., SACKS, R. & LISTON, K. 2011. *BIM handbook: A guide to building information modeling for owners, managers, designers, engineers and contractors*, John Wiley & Sons.
- EDHLUND, B. & MCDUGALL, A. 2012. *NVivo 10 essentials*, Lulu. com.
- EKSOZ, C., MANSOURI, S. A. & BOURLAKIS, M. 2014. Collaborative forecasting in the food supply chain: a conceptual framework. *International Journal of Production Economics*, 158, 120-135.
- EL ASMAR, M., HANNA, A. S. & CHANG, C.-K. 2009. Monte Carlo simulation approach to support alliance team selection. *Journal of Construction Engineering and Management*, 135, 1087-1095.
- ELLEGAARD, C. & KOCH, C. 2012. The effects of low internal integration between purchasing and operations on suppliers' resource mobilization. *Journal of Purchasing and Supply Management*, 18, 148-158.
- ELLIOTT, A. C. & HYNAN, L. S. 2011. A SAS® macro implementation of a multiple comparison post hoc test for a Kruskal–Wallis analysis. *Computer methods and programs in biomedicine*, 102, 75-80.

- ELMUTI, D., ABOU-ZAID, A. S. & JIA, H. 2012. Role of strategic fit and resource complementarity in strategic alliance effectiveness. *Journal of Global Business and Technology*, 8, 16.
- EMDEN, Z., YAPRAK, A. & CAVUSGIL, S. T. 2005. Learning from experience in international alliances: antecedents and firm performance implications. *Journal of Business Research*, 58, 883-892.
- EMERSON, R. M. 1962. Power-dependence relations. *American sociological review*, 31-41.
- EMUZE, F. 2017. A discourse on lean construction in Africa, using a supply chain example. *Journal of Construction Project management and Innovation*, 7, 1664-1674.
- ERIKSSON, P. E. 2015. Partnering in engineering projects: Four dimensions of supply chain integration. *Journal of Purchasing and Supply Management*, 21, 38-50.
- FELLOWS, R. F. & LIU, A. M. 2015. *Research methods for construction*, London, John Wiley & Sons.
- FERRARY, M. 2015. Investing in transferable strategic human capital through alliances in the luxury hotel industry. *Journal of Knowledge Management*, 19, 1007-1028.
- FIELD, A. 2009. *Discovering statistics using SPSS*, London, Sage.
- FIELD, A. 2013. *Discovering statistics using IBM SPSS statistics*, sage.
- FINK, A. 2003. *The survey handbook*, London, Sage.
- FISHER, C. M. 2010. *Researching and writing a dissertation: an essential guide for business students*, London, Pearson Education.
- FLOWERS, P. 2009. Research philosophies—importance and relevance. *Economic Record*, 1.
- FONG, P. S. & LUNG, B. W. 2007. Interorganizational teamwork in the construction industry. *Journal of Construction Engineering and Management*, 133, 157-168.
- FRANCO, M. 2011. Determining factors in the success of strategic alliances: an empirical study performed in Portuguese firms. *European Journal of International Management*, 5, 608-632.
- GABBAY, S. M. & LEENDERS, R. T. 1999. CSC: The structure of advantage and disadvantage. *Corporate social capital and liability*. Springer.
- GABRIEL, E. 1991. Teamwork—Fact and fiction. *International Journal of Project Management*, 9, 195-198.
- GADDE, L.-E. & DUBOIS, A. 2010. Partnering in the construction industry—Problems and opportunities. *Journal of purchasing and supply management*, 16, 254-263.
- GADDE, L.-E., HÅKANSSON, H. & PERSSON, G. 2010. *Supply network strategies*, John Wiley & Sons.
- GANN, D. M. & SALTER, A. J. 2000. Innovation in project-based, service-enhanced firms: the construction of complex products and systems. *Research policy*, 29, 955-972.
- GAUR, A., MUKHERJEE, D., GAUR, S. S. & SCHMID, F. 2011. Environmental and Firm Level Influences on Inter-Organizational Trust and SME Performance. *Journal of Management Studies*, 48, 1752-1781.
- GEORGE, D. & MALLERY, P. 2007. *SPSS for Windows: Step by step 14.0 update*. Boston: Allyn & Bacon.
- GEORGE, V. & FARRIS, G. 1999. Performance of alliances: formative stages and changing organizational and environmental influences. *R&D Management*, 29, 379-390.
- GERINGER, J. M. 1990. *Trends and traits of Canadian joint ventures*, Quebec, Investissement Canada.
- GERINGER, J. M. & HEBERT, L. 1989. Control and performance of international joint ventures. *Journal of international business studies*, 235-254.
- GHOSHAL, S. & MORAN, P. 1996. Bad for practice: A critique of the transaction cost theory. *Academy of management Review*, 21, 13-47.

- GIBBERT, M., RUIGROK, W. & WICKI, B. 2008. What passes as a rigorous case study? *Strategic management journal*, 29, 1465-1474.
- GIDDINGS, L. S. & GRANT, B. M. 2006. Mixed methods research for the novice researcher. *Contemporary Nurse*, 23, 3-11.
- GILL, J. & JOHNSON, P. 2010. *Research methods for managers*, Sage.
- GILLHAM, B. 2005. *Research Interviewing: The range of techniques: A practical guide*, McGraw-Hill Education (UK).
- GLOBERMAN, S. & NIELSEN, B. B. 2007. Equity versus non-equity international strategic alliances involving Danish firms: An empirical investigation of the relative importance of partner and host country determinants. *Journal of International Management*, 13, 449-471.
- GOMES-CASSERES, B. 1989. Ownership structures of foreign subsidiaries: Theory and evidence. *Journal of Economic Behavior & Organization*, 11, 1-25.
- GOMES, E., ANGWIN, D. N., WEBER, Y. & YEDIDIA TARBA, S. 2013. Critical success factors through the mergers and acquisitions process: revealing pre-and post-M&A connections for improved performance. *Thunderbird international business review*, 55, 13-35.
- GONZALEZ, M. 2001. Strategic alliances. *Ivey Business Journal*, 66, 47-51.
- GRAY, D. E. 2004. *Doing research in the real world*, London, Sage.
- GRAY, J. & LAIDLAW, H. 2004. Improving the measurement of communication satisfaction. *Management communication quarterly*, 17, 425-448.
- GREENER, S. 2008. *Business research methods*, London, BookBoon.
- GRONUM, S. 2015. SME performance: the role of networking, innovation breadth, and business model design.
- GROVER, V. & MALHOTRA, M. K. 2003. Transaction cost framework in operations and supply chain management research: theory and measurement. *Journal of Operations management*, 21, 457-473.
- GUEST, G., BUNCE, A. & JOHNSON, L. 2006. How many interviews are enough? An experiment with data saturation and variability. *Field methods*, 18, 59-82.
- GULATI, R. 1995a. Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of management journal*, 38, 85-112.
- GULATI, R. 1995b. Social structure and alliance formation patterns: A longitudinal analysis. *Administrative science quarterly*, 619-652.
- GULATI, R. 1998. Alliances and networks. *Strategic Management Journal*, 19, 293-317.
- GULATI, R. 2007. *Managing network resources: Alliances, affiliations, and other relational assets*, Oxford University Press on Demand.
- GULATI, R. & SINGH, H. 1998. The architecture of cooperation: Managing coordination costs and appropriation concerns in strategic alliances. *Administrative science quarterly*, 781-814.
- GULATI, R. & SYTCH, M. 2007a. Dependence asymmetry and joint dependence in interorganizational relationships: Effects of embeddedness on a manufacturer's performance in procurement relationships. *Administrative Science Quarterly*, 52, 32-69.
- GULATI, R. & SYTCH, M. 2007b. Dependence asymmetry and joint dependence in interorganizational relationships: Effects of embeddedness on a manufacturer's performance in procurement relationships. *Administrative Science Quarterly*, 52, 32-69.
- GULATI, R., WOHLGEZOGEN, F. & ZHELYAZKOV, P. 2012. The two facets of collaboration: Cooperation and coordination in strategic alliances. *The Academy of Management Annals*, 6, 531-583.

- GUNDLACH, G. T., ACHROL, R. S. & MENTZER, J. T. 1995. The structure of commitment in exchange. *Journal of marketing*, 59, 78-92.
- GUREVICH, U., SACKS, R. & SHRESTHA, P. 2017. BIM adoption by public facility agencies: Impacts on occupant value. *Building Research & Information*, 45, 610-630.
- HAGHIRIAN, P. 2011. *Multinational and Cross-Cultural Management*. Routledge Abingdon, England.
- HÅKANSSON, H. & SNEHOTA, I. 1989. No business is an island: the network concept of business strategy. *Scandinavian journal of management*, 5, 187-200.
- HAMEL, G. 1991. Competition for competence and inter-partner learning within international strategic alliances. *Strategic management journal*, 12, 83-103.
- HANDLEY, S. M. & BENTON JR, W. 2012. The influence of exchange hazards and power on opportunism in outsourcing relationships. *Journal of Operations Management*, 30, 55-68.
- HARRIGAN, K. R. 1986. *Managing for joint venture success*, New York, Simon and Schuster.
- HASANZADEH, S., GAD, G. M., NASROLLAHI, S., ESMAEILI, B. & GRANSBERG, D. D. Impacts of levels of trust on dispute occurrences in highway projects. Construction Research Congress 2016, 2016. 497-507.
- HATCH, M. & CUNLIFFE, A. 2006. *Organization theory*. 2nd ed. Oxford: Oxford University Press.
- HAUSMAN, A. & JOHNSTON, W. J. 2010. The impact of coercive and non-coercive forms of influence on trust, commitment, and compliance in supply chains. *Industrial Marketing Management*, 39, 519-526.
- HAVENVID, M. I., HOLMEN, E., LINNÉ, Å. & PEDERSEN, A.-C. 2017. Creating relationship continuity across projects in the construction industry: Deliberate, emergent and deliberately emergent strategies. *IMP Journal*, 11, 207-229.
- HAWKINS, D. 2017. Collaborative working is the key to the future of rail infrastructure.
- HEARLD, L. R. & ALEXANDER, J. A. 2014. Governance processes and change within organizational participants of multi-sectoral community health care alliances: The mediating role of vision, mission, strategy agreement and perceived alliance value. *American journal of community psychology*, 53, 185-197.
- HEAVEY, C. & MURPHY, E. 2012. A proposed cooperation framework for organisations and their leaders. *Management Decision*, 50, 993-1000.
- HEIMERIKS, K. H., KLIJN, E. & REUER, J. J. 2009. Building capabilities for alliance portfolios. *Long Range Planning*, 42, 96-114.
- HELFAT, C. E., FINKELSTEIN, S., MITCHELL, W., PETERAF, M., SINGH, H., TEECE, D. & WINTER, S. 2007. Dynamic capabilities: foundations. *Dynamic capabilities: Understanding strategic change in organizations*, 1-18.
- HENDERSON, S. S. & SMITH-KING, E. J. 2015. Sectoral decision making: structures, processes and trust. *Management Decision*, 53, 1545-1559.
- HENRY JIN, Y., FAWCETT, A. M. & FAWCETT, S. E. 2013. Awareness is not enough: Commitment and performance implications of supply chain integration. *International Journal of Physical Distribution & Logistics Management*, 43, 205-230.
- HERON, J. 1996. *Co-operative inquiry: Research into the human condition*, London, Sage.
- HINGLEY, M., LINDGREEN, A., GRANT, D. B. & KANE, C. 2011. Using fourth-party logistics management to improve horizontal collaboration among grocery retailers. *Supply Chain Management: An International Journal*, 16, 316-327.
- HITCHCOCK, D. 2017. Deduction, induction and conduction. *On Reasoning and Argument*. Springer.
- HÖDL, M. & PUCK, J. 2013. Asset specificity, IJV performance and the moderating effect of trust: Evidence from China. *Asian Business & Management*, 13, 65-88.

- HOEGL, M. & WAGNER, S. M. 2005. Buyer-supplier collaboration in product development projects. *Journal of management*, 31, 530-548.
- HOFFMANN, W. H. & SCHLOSSER, R. 2001. Success factors of strategic alliances in small and medium-sized enterprises—An empirical survey. *Long range planning*, 34, 357-381.
- HOLDEN, M. T. & LYNCH, P. 2004. Choosing the appropriate methodology: Understanding research philosophy. *The marketing review*, 4, 397-409.
- HOLMBERG, S. R. & CUMMINGS, J. L. 2009. Building successful strategic alliances: strategic process and analytical tool for selecting partner industries and firms. *Long range planning*, 42, 164-193.
- HOLT, G. D., LOVE, P. E. & LI, H. 2000. The learning organisation: toward a paradigm for mutually beneficial strategic construction alliances. *International journal of project management*, 18, 415-421.
- HONG, Y. & WM CHAN, D. 2014. Research trend of joint ventures in construction: a two-decade taxonomic review. *Journal of facilities management*, 12, 118-141.
- HOOVER, R. S. & KOERBER, A. L. 2011. Using NVivo to answer the challenges of qualitative research in professional communication: Benefits and best practices tutorial. *IEEE transactions on Professional Communication*, 54, 68-82.
- HUANG, Y. & WILKINSON, I. F. 2013. The dynamics and evolution of trust in business relationships. *Industrial Marketing Management*, 42, 455-465.
- HUGHES, W., CHAMPION, R. & MURDOCH, J. 2015. *Construction contracts: law and management*, London, Routledge.
- HUNT, S. D. & MORGAN, R. M. 1995. The comparative advantage theory of competition. *Journal of Marketing*, 1-15.
- HUO, B., TIAN, M., TIAN, Y. & ZHANG, Q. 2019. The dilemma of inter-organizational relationships: Dependence, use of power and their impacts on opportunism. *International Journal of Operations & Production Management*, 39, 2-23.
- HUSSEIN, A. 2009. The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined? *Journal of Comparative Social Work*, 4.
- HWANG, B.-G., ZHAO, X. & GAY, M. J. S. 2013. Public private partnership projects in Singapore: Factors, critical risks and preferred risk allocation from the perspective of contractors. *International Journal of Project Management*, 31, 424-433.
- INKPEN, A. & RAMASWAMY, K. 2006. Global knowledge management. *Global Strategy: Creating and Sustaining Advantage Across Borders*, 107-128.
- INKPEN, A. C. 2000. Learning through joint ventures: a framework of knowledge acquisition. *Journal of management studies*, 37, 1019-1044.
- INKPEN, A. C. & BEAMISH, P. W. 1997. Knowledge, bargaining power, and the instability of international joint ventures. *Academy of management review*, 22, 177-202.
- INKPEN, A. C. & CURRALL, S. C. 2004. The coevolution of trust, control, and learning in joint ventures. *Organization science*, 15, 586-599.
- INKPEN, A. C. & TSANG, E. W. 2005. Social capital, networks, and knowledge transfer. *Academy of management review*, 30, 146-165.
- IRELAND, R. D., HITT, M. A. & VAIDYANATH, D. 2002. Alliance management as a source of competitive advantage. *Journal of management*, 28, 413-446.
- IRELAND, R. D. & WEBB, J. W. 2007. A multi-theoretic perspective on trust and power in strategic supply chains. *Journal of Operations Management*, 25, 482-497.
- IŠORAITĚ, M. 2009. Importance of strategic alliances in company's activity.
- JABAREEN, Y. 2009. Building a conceptual framework: philosophy, definitions, and procedure. *International Journal of qualitative methods*, 8, 49-62.

- JACOBSON, C. & OK CHOI, S. 2008. Success factors: public works and public-private partnerships. *International Journal of Public Sector Management*, 21, 637-657.
- JAIN, M., KHALIL, S., JOHNSTON, W. J. & CHENG, J. M.-S. 2014. The performance implications of power–trust relationship: The moderating role of commitment in the supplier–retailer relationship. *Industrial Marketing Management*, 43, 312-321.
- JAP, S. D. 1999. Pie-expansion efforts: collaboration processes in buyer-supplier relationships. *Journal of marketing Research*, 461-475.
- JARILLO, J. C. 1989. Entrepreneurship and growth: The strategic use of external resources. *Journal of business venturing*, 4, 133-147.
- JAYA, N. M. 2014. *An activity-based cost controlling model for improving the management of construction project overheads*. University of Salford.
- JEFFERIES, M. 2006. Critical success factors of public private sector partnerships: A case study of the Sydney SuperDome. *Engineering, Construction and Architectural Management*, 13, 451-462.
- JEFFERIES, M., JOHN BREWER, G. & GAJENDRAN, T. 2014. Using a case study approach to identify critical success factors for alliance contracting. *Engineering, Construction and Architectural Management*, 21, 465-480.
- JELODAR, M. B., YIU, T. W. & WILKINSON, S. 2016. A conceptualisation of relationship quality in construction procurement. *International Journal of Project Management*, 34, 997-1011.
- JENA, S., GUIN, K. & DASH, S. 2011. Effect of relationship building and constraint-based factors on business buyers' relationship continuity intention: A study on the Indian steel industry. *Journal of Indian Business Research*, 3, 22-42.
- JIANG, R. J., TAO, Q. T. & SANTORO, M. D. 2010. Alliance portfolio diversity and firm performance. *Strategic Management Journal*, 31, 1136-1144.
- JIANG, X., BAO, Y., XIE, Y. & GAO, S. 2016. Partner trustworthiness, knowledge flow in strategic alliances, and firm competitiveness: A contingency perspective. *Journal of Business Research*, 69, 804-814.
- JIANG, X., JIANG, F., CAI, X. & LIU, H. 2015. How does trust affect alliance performance? The mediating role of resource sharing. *Industrial Marketing Management*, 45, 128-138.
- JIANG, X., LI, M., GAO, S., BAO, Y. & JIANG, F. 2013. Managing knowledge leakage in strategic alliances: The effects of trust and formal contracts. *Industrial Marketing Management*, 42, 983-991.
- JIANG, X. & LI, Y. 2008. The relationship between organizational learning and firms' financial performance in strategic alliances: A contingency approach. *Journal of world business*, 43, 365-379.
- JOHNSON, P. & DUBERLEY, J. 2000. *Understanding management research: An introduction to epistemology*, Sage.
- JOSHI, A., LABIANCA, G. & CALIGIURI, P. M. 2002. Getting along long distance: Understanding conflict in a multinational team through network analysis. *Journal of World Business*, 37, 277-284.
- JUDGE, W. Q. & DOOLEY, R. 2006. Strategic alliance outcomes: a transaction-cost economics perspective. *British Journal of Management*, 17, 23-37.
- KAGIOGLOU, M., COOPER, R., AOUAD, G. & SEXTON, M. 2000. Rethinking construction: the generic design and construction process protocol. *Engineering construction and architectural management*, 7, 141-153.
- KALAFATIS, S. P., RILEY, D. & SINGH, J. 2013. Context effects in the evaluation of business-to-business brand alliances. *Industrial Marketing Management*.

- KALE, P., DYER, J. & SINGH, H. 2001. Value creation and success in strategic alliances:: alliancing skills and the role of alliance structure and systems. *European Management Journal*, 19, 463-471.
- KALE, P., DYER, J. H. & SINGH, H. 2002. Alliance capability, stock market response, and long-term alliance success: the role of the alliance function. *Strategic Management Journal*, 23, 747-767.
- KALE, P. & SINGH, H. 2007. Building firm capabilities through learning: the role of the alliance learning process in alliance capability and firm-level alliance success. *Strategic Management Journal*, 28, 981-1000.
- KALE, P. & SINGH, H. 2009. Managing strategic alliances: What do we know now, and where do we go from here. *Academy of management perspectives*, 23, 45-62.
- KANG, I., HAN, S., LEE, J. & OLFMAN, L. 2016. An evolutionary perspective of opportunism in high-technology alliance: the evidence from South Korean companies. *Asia Pacific Business Review*, 22, 238-261.
- KAPLAN, R. S., NORTON, D. P. & RUGELSSJOEN, B. 2010. Managing alliances with the balanced scorecard. *Harvard business review*, 88, 114-120.
- KAPOGIANNIS, G. & MLILO, A. 2019. Digital Construction Strategies and BIM in Railway Tunnelling Engineering. *Tunnel Engineering*. IntechOpen.
- KAPOGIANNIS, G. & SHERRATT, F. 2018. Impact of integrated collaborative technologies to form a collaborative culture in construction projects. *Built Environment Project and Asset Management*, 8, 24-38.
- KARLSEN, T., SILSETH, P. R., BENITO, G. R. & WELCH, L. S. 2003. Knowledge, internationalization of the firm, and inward–outward connections. *Industrial marketing management*, 32, 385-396.
- KARLSSON, A. & KINDBOM, I. 2018. Collaboration between project owners and contractors during the tender process in the construction industry.
- KATSIKEAS, C. S., SKARMEAS, D. & BELLO, D. C. 2009. Developing successful trust-based international exchange relationships. *Journal of international business studies*, 40, 132-155.
- KAUSER, S. & SHAW, V. 2004. The influence of behavioural and organisational characteristics on the success of international strategic alliances. *International Marketing Review*, 21, 17-52.
- KELLEY, H. H. 1979. *Personal relationships: Their structures and processes*, Psychology Press.
- KELTNER, D., GRUENFELD, D. H. & ANDERSON, C. 2003. Power, approach, and inhibition. *Psychological review*, 110, 265.
- KERAMINIYAGE, K. P. 2009. *Achieving high process capability maturity in construction organisations*. Salford: University of Salford.
- KHAMSEH, H. M. & JOLLY, D. R. Identifying and Classifying the Determinant Factors of Knowledge Transfer in Strategic Alliances. 2006 Technology Management for the Global Future-PICMET 2006 Conference, 2006a. IEEE, 273-281.
- KHAMSEH, H. M. & JOLLY, D. R. Identifying and classifying the determinant factors of knowledge transfer in strategic alliances. Technology Management for the Global Future, 2006. PICMET 2006, 2006b. IEEE, 273-281.
- KIM, J. & PARKHE, A. 2009. Competing and cooperating similarity in global strategic alliances: an exploratory examination. *British Journal of Management*, 20, 363-376.
- KINDERIS, R. & JUCEVIČIUS, G. 2013. Strategic alliances—their definition and formation. *Latgale National Economy Research*, 1.
- KNOKE, D. 2018. *Changing organizations: Business networks in the new political economy*, Routledge.

- KOGUT, B. 1988. Joint ventures: Theoretical and empirical perspectives. *Strategic management journal*, 9, 319-332.
- KOHTAMÄKI, M., THORGREN, S. & WINCENT, J. 2016. Organizational identity and behaviors in strategic networks. *Journal of Business & Industrial Marketing*, 31, 36-46.
- KOOLWIJK, J. S. J., VAN OEL, C. J., WAMELINK, J. W. F. & VRIJHOEF, R. 2018. Collaboration and integration in project-based supply chains in the construction industry. *Journal of Management in Engineering*, 34, 04018001.
- KRAMER, R. M. 1999. Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual review of psychology*, 50, 569-598.
- KRATHWOHL, D. R. 1993. *Methods of educational and social science research: An integrated approach*, London, Longman/Addison Wesley Longman.
- KRISHNAN, R., GEYSKENS, I. & STEENKAMP, J. B. E. 2016. The effectiveness of contractual and trust-based governance in strategic alliances under behavioral and environmental uncertainty. *Strategic Management Journal*.
- KRUSKAL, W. H. & WALLIS, W. A. 1952. Use of ranks in one-criterion variance analysis. *Journal of the American statistical Association*, 47, 583-621.
- KULATUNGA, U. 2008. *Influence of performance measurement towards construction research and development*. PhD Thesis, University of Salford.
- KUMAR, N., HIBBARD, J. D. & STERN, L. W. 1994. The nature and consequences of marketing channel intermediary commitment. *Report-Marketing Science Institute Cambridge Massachusetts*.
- KUMAR, R. 2014a. Managing ambiguity in strategic alliances. *California management review*, 56, 82-102.
- KUMAR, R. 2014b. *Research methodology: A step-by-step guide for beginners*, London, Sage.
- KUMAR, R. & PATRIOTTA, G. 2011. Culture and international alliance negotiations: a sensemaking perspective. *International Negotiation*, 16, 511-533.
- KUMAR, R., SINGH, R. K. & SHANKAR, R. 2015. Critical success factors for implementation of supply chain management in Indian small and medium enterprises and their impact on performance. *IIMB Management review*, 27, 92-104.
- KWON, I. W. G. & SUH, T. 2004. Factors affecting the level of trust and commitment in supply chain relationships. *Journal of Supply Chain Management*, 40, 4-14.
- LAAN, A., NOORDERHAVEN, N., VOORDIJK, H. & DEWULF, G. 2011. Building trust in construction partnering projects: An exploratory case-study. *Journal of Purchasing and Supply Management*, 17, 98-108.
- LAHDENPERÄ, P. 2012. Making sense of the multi-party contractual arrangements of project partnering, project alliancing and integrated project delivery. *Construction Management and Economics*, 30, 57-79.
- LAI, W.-H. & CHANG, P.-L. 2010. Corporate motivation and performance in R&D alliances. *Journal of Business research*, 63, 490-496.
- LAMBE, C. J., SPEKMAN, R. E. & HUNT, S. D. 2002. Alliance competence, resources, and alliance success: conceptualization, measurement, and initial test. *Journal of the academy of Marketing Science*, 30, 141-158.
- LARIMO, J., LE NGUYEN, H. & ALI, T. 2016. Performance measurement choices in international joint ventures: What factors drive them? *Journal of Business Research*, 69, 877-887.
- LAU, C.-M., YIU, D. W., YEUNG, P.-K. & LU, Y. 2008. Strategic orientation of high-technology firms in a transitional economy. *Journal of Business Research*, 61, 765-777.



- LAVIE, D. 2007. Alliance portfolios and firm performance: A study of value creation and appropriation in the US software industry. *Strategic management journal*, 28, 1187-1212.
- LAVIE, D., HAUNSCHILD, P. R. & KHANNA, P. 2012. Organizational differences, relational mechanisms, and alliance performance. *Strategic Management Journal*, 33, 1453-1479.
- LECRAW, D. J. 1983. Performance of transnational corporations in less developed countries. *Journal of International Business Studies*, 15-33.
- LEE, J., PARK, S. H., RYU, Y. & BAIK, Y.-S. 2010. A hidden cost of strategic alliances under Schumpeterian dynamics. *Research Policy*, 39, 229-238.
- LEE, J. K., HAN, S. H., JANG, W. & JUNG, W. 2018. “Win-win strategy” for sustainable relationship between general contractors and subcontractors in international construction projects. *KSCE Journal of Civil Engineering*, 22, 428-439.
- LEE, W.-L. 2014. Environmental uncertainty affects inter-organisational partner selection: The mediating role of cost and strategy in alliance motivations among SMEs. *Journal of Management & Organization*, 20, 38-55.
- LEE, Y. & CAVUSGIL, S. T. 2006. Enhancing alliance performance: The effects of contractual-based versus relational-based governance. *Journal of business research*, 59, 896-905.
- LEFROY, K. & TSARENKO, Y. 2013. From receiving to achieving The role of relationship and dependence for nonprofit organisations in corporate partnerships. *European Journal of Marketing*, 47, 1641-1666.
- LEFROY, K. & TSARENKO, Y. 2014. Dependence and effectiveness in the nonprofit-corporate alliance: The mediating effect of objectives achievement. *Journal of Business Research*, 67, 1959-1966.
- LEONIDOU, L. C., TALIAS, M. A. & LEONIDOU, C. N. 2008. Exercised power as a driver of trust and commitment in cross-border industrial buyer–seller relationships. *Industrial Marketing Management*, 37, 92-103.
- LESSING, B., THURNELL, D. & DURDYEV, S. 2017. Main factors causing delays in large construction projects: Evidence from New Zealand.
- LI, D., EDEN, L., HITT, M. A. & IRELAND, R. D. 2008a. Friends, acquaintances, or strangers? Partner selection in R&D alliances. *Academy of Management Journal*, 51, 315-334.
- LI, J., CHU, C. W. L., WANG, X., ZHU, H., TANG, G. & CHEN, Y. 2012. Symbiotic ownership, cultural alignment, and firm performance: A test among international strategic alliances. *International Business Review*, 21, 987-997.
- LI, L., QIAN, G. & QIAN, Z. 2013. Do partners in international strategic alliances share resources, costs, and risks? *Journal of Business Research*, 66, 489-498.
- LI, M., ZHANG, Y. & JING, R. 2008b. Does ownership and culture matter to joint venture success? *International Management Review*, 4, 88.
- LI, Y., LIU, Y. & LIU, H. 2011. Co-opetition, distributor's entrepreneurial orientation and manufacturer's knowledge acquisition: Evidence from China. *Journal of Operations Management*, 29, 128-142.
- LIANG, T.-P., JIANG, J., KLEIN, G. S. & LIU, J. Y.-C. 2010. Software quality as influenced by informational diversity, task conflict, and learning in project teams. *IEEE Transactions on Engineering Management*, 57, 477-487.
- LIN, H. & DARNALL, N. 2015. Strategic alliance formation and structural configuration. *Journal of Business Ethics*, 127, 549-564.
- LIN, X. & WANG, C. L. 2008. Enforcement and performance: The role of ownership, legalism and trust in international joint ventures. *Journal of World Business*, 43, 340-351.

- LING, F. Y. Y., RAHMAN, M. M. & NG, T. L. 2006. Incorporating contractual incentives to facilitate relational contracting. *Journal of Professional Issues in Engineering Education and Practice*, 132, 57-66.
- LIOUKAS, C. S., REUER, J. J. & ZOLLO, M. 2016. Effects of Information Technology Capabilities on Strategic Alliances: Implications for the Resource-Based View. *Journal of Management Studies*, 53, 161-183.
- LIU, C.-L. E., GHAURI, P. N. & SINKOVICS, R. R. 2010. Understanding the impact of relational capital and organizational learning on alliance outcomes. *Journal of World Business*, 45, 237-249.
- LO, F.-Y., LO, F.-Y., STEPICHEVA, A., STEPICHEVA, A., PENG, T.-J. A. & PENG, T.-J. A. 2016. Relational capital, strategic alliances and learning: In-depth analysis of Chinese-Russian cases in Taiwan. *Chinese Management Studies*, 10, 155-183.
- LÖNNGREN, H.-M., ROSENKRANZ, C. & KOLBE, H. 2010. Aggregated construction supply chains: success factors in implementation of strategic partnerships. *Supply Chain Management: An International Journal*, 15, 404-411.
- LORANGE, P. 1996. Interactive strategies—Alliances and partnerships. *Long Range Planning*, 29, 581-584.
- LOVE, P. E., MISTRY, D. & DAVIS, P. R. 2010. Price competitive alliance projects: identification of success factors for public clients. *Journal of Construction Engineering and Management*.
- LU, M., WATSON-MANHEIM, M. B., CHUDOBA, K. M. & WYNN, E. 2006. Virtuality and team performance: Understanding the impact of variety of practices. *Journal of Global Information Technology Management*, 9, 4-23.
- LU, S. & HAO, G. 2012. The influence of owner power in fostering contractor cooperation: Evidence from China. *International Journal of Project Management*, 31, 522-531.
- LU, S. & HAO, G. 2013. The influence of owner power in fostering contractor cooperation: Evidence from China. *International Journal of Project Management*, 31, 522-531.
- LUI, S. S., WONG, Y.-Y. & LIU, W. 2008. Asset specificity roles in interfirm cooperation: Reducing opportunistic behavior or increasing cooperative behavior? *Journal of Business research*, 62, 1214-1219.
- LUNNAN, R. & HAUGLAND, S. A. 2008. Predicting and measuring alliance performance: A multidimensional analysis. *Strategic Management Journal*, 29, 545-556.
- LUO, H. & FLICK, U. 2012. *Introducing Research Methodology: A Beginner's Guide to Doing a Research Project*. JSTOR.
- LUO, Y. 2006. Opportunism in Inter-firm Exchanges in Emerging Markets [1]. *Management and Organization Review*, 2, 121-147.
- LUO, Y., LIU, Y., YANG, Q., MAKSIMOV, V. & HOU, J. 2015. Improving performance and reducing cost in buyer-supplier relationships: The role of justice in curtailing opportunism. *Journal of Business Research*, 68, 607-615.
- LUREY, J. S. & RAISINGHANI, M. S. 2001. An empirical study of best practices in virtual teams. *Information & Management*, 38, 523-544.
- LUSCH, R. F. & BROWN, J. R. 1996. Interdependency, contracting, and relational behavior in marketing channels. *The Journal of Marketing*, 19-38.
- LUZZINI, D., BRANDON-JONES, E., BRANDON-JONES, A. & SPINA, G. 2015. From sustainability commitment to performance: The role of intra-and inter-firm collaborative capabilities in the upstream supply chain. *International Journal of Production Economics*, 165, 51-63.
- MA, C., YANG, Z., YAO, Z., FISHER, G. & FANG, E. 2012. The effect of strategic alliance resource accumulation and process characteristics on new product success: Exploration

- of international high-tech strategic alliances in China. *Industrial Marketing Management*, 41, 469-480.
- MA, L. 2012. Some philosophical considerations in using mixed methods in library and information science research. *Journal of the American Society for Information Science and Technology*, 63, 1859-1867.
- MACDONALD 2016. Information hand over principles.
- MADHOK, A. 2006. Revisiting multinational firms' tolerance for joint ventures: A trust-based approach. *Journal of International Business Studies*, 37, 30-43.
- MALHOTRA, D. & LUMINEAU, F. 2011. Trust and collaboration in the aftermath of conflict: The effects of contract structure. *Academy of Management Journal*, 54, 981-998.
- MARTINS, D. M., FARIA, A. C. D., PREARO, L. C. & ARRUDA, A. G. S. 2017. The level of influence of trust, commitment, cooperation, and power in the interorganizational relationships of Brazilian credit cooperatives. *Revista de Administração (São Paulo)*, 52, 47-58.
- MATHEWS, J. A. 2003. Competitive dynamics and economic learning: an extended resource-based view. *Industrial and Corporate Change*, 12, 115-145.
- MAURER, R. 2001. Why most mergers fail. *Executive Excellence*, 18, 10-10.
- MCEVILY, B., PERRONE, V. & ZAHEER, A. 2003. Trust as an organizing principle. *Organization science*, 14, 91-103.
- MCEVILY, B. & ZAHEER, A. 2005. 16 Does trust still matter? Research on the role of trust in inter-organizational exchange. *Handbook of trust research*, 280.
- MCNAMARA, C. 1999. General guidelines for conducting interviews. Retrieved December, 20, 2003.
- MCNEILL, P. & CHAPMAN, S. 2005. *Research methods*, Psychology Press.
- MEDCOF, J. W. 1997. Why too many alliances end in divorce. *Long Range Planning*, 30, 718-732.
- MEIER, M. 2011. Knowledge management in strategic alliances: a review of empirical evidence. *International journal of management reviews*, 13, 1-23.
- MEIER, M., LÜTKEWITTE, M., MELLEWIGT, T. & DECKER, C. 2016. How managers can build trust in strategic alliances: a meta-analysis on the central trust-building mechanisms. *Journal of Business Economics*, 86, 229-257.
- MELLAT-PARAST, M. & DIGMAN, L. A. 2008. Learning: the interface of quality management and strategic alliances. *International Journal of Production Economics*, 114, 820-829.
- MENG, X. 2012. The effect of relationship management on project performance in construction. *International journal of project management*, 30, 188-198.
- MERTENS, D. M. 2015. *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*, Sage publications.
- MEYER, J. P. & SEAMAN, M. A. 2013. A comparison of the exact Kruskal-Wallis distribution to asymptotic approximations for all sample sizes up to 105. *The Journal of Experimental Education*, 81, 139-156.
- MICHAEL, Y., YOSHINO, U. & RANGAN, S. 1995. Strategic alliance. *An Entrepreneurial Approach to Globalization*. Harvard Business School Press.
- MILANOV, H. & FERNHABER, S. A. 2014. When do domestic alliances help ventures abroad? Direct and moderating effects from a learning perspective. *Journal of Business Venturing*, 29, 377-391.
- MIN, H. & JOO, S.-J. 2016. A comparative performance analysis of airline strategic alliances using data envelopment analysis. *Journal of Air Transport Management*, 52, 99-110.
- MOCKLER, R. J. 1999. *CBI Series in Practical Strategy, Multinational Strategic Alliances*, Wiley.

- MOGHADDAM, K., BOSSE, D. A. & PROVANCE, M. 2016. Strategic Alliances of Entrepreneurial Firms: Value Enhancing Then Value Destroying. *Strategic Entrepreneurship Journal*, 10, 153-168.
- MOHR, J. & SPEKMAN, R. 1994. Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution techniques. *Strategic management journal*, 15, 135-152.
- MOLM, L. D. 1997. Risk and power use: Constraints on the use of coercion in exchange. *American Sociological Review*, 113-133.
- MONCZKA, R. M., PETERSEN, K. J., HANDFIELD, R. B. & RAGATZ, G. L. 1998. Success factors in strategic supplier alliances: the buying company perspective. *Decision Sciences*, 29, 553-577.
- MORGAN, R. M. & HUNT, S. D. 1994. The commitment-trust theory of relationship marketing. *The journal of marketing*, 20-38.
- MORROW, J., SIRMON, D. G., HITT, M. A. & HOLCOMB, T. R. 2007. Creating value in the face of declining performance: Firm strategies and organizational recovery. *Strategic management journal*, 28, 271-283.
- MORSE, J. M., BARRETT, M., MAYAN, M., OLSON, K. & SPIERS, J. 2002. Verification strategies for establishing reliability and validity in qualitative research. *International journal of qualitative methods*, 1, 13-22.
- MUIJS, D. 2004. *Doing quantitative research in education with SPSS*, Sage.
- MURRAY, J. Y. & KOTABE, M. 2005. Performance implications of strategic fit between alliance attributes and alliance forms. *Journal of Business Research*, 58, 1525-1533.
- NAKOS, G. & BROUTHERS, K. D. 2008. International alliance commitment and performance of small and medium-size enterprises: The mediating role of process control. *Journal of International Management*, 14, 124-137.
- NAMEY, E., GUEST, G., THAIRU, L. & JOHNSON, L. 2007. Data reduction techniques for large qualitative data sets. *Handbook for team-based qualitative research*, 2, 137-161.
- NETWORKRAIL. 2019a. *A better railway for a better Britain* [Online]. Available: <https://www.networkrail.co.uk/wp-content/uploads/2018/02/Strategic-business-plan-high-level-summary.pdf>.
- NETWORKRAIL. 2019b. *The Ordsall Chord links Manchester's Victoria, Oxford Road and Piccadilly stations and is part of the Great North Rail Project*. [Online]. Available: <https://www.networkrail.co.uk/running-the-railway/our-routes/lmw/ordsall-chord/>.
- NETWORKRAIL. 2019c. *Ordsall chord project wins Railway Industry Innovation Awards* [Online]. Available: <https://www.networkrail.co.uk/feeds/ordsall-chord-project-wins-railway-industry-innovation-awards/>.
- NEUMAN, L. W. 2002. Social research methods: Qualitative and quantitative approaches.
- NEVILLE, C. 2007. Introduction to research and research methods. *Bradford: Effective Learning Service*.
- NGULUBE, P., MATHIPA, E. R. & GUMBO, M. T. 2015. Theoretical and conceptual frameworks in the social and management sciences. *Addressing research challenges: Making headway in developing researchers*, 43-66.
- NIELSEN, B. B. 2005. The role of knowledge embeddedness in the creation of synergies in strategic alliances. *Journal of Business Research*, 58, 1194-1204.
- NIELSEN, B. B. 2007. Determining international strategic alliance performance: A multidimensional approach. *International Business Review*, 16, 337-361.
- NIELSEN, B. B. & NIELSEN, S. 2009. Learning and innovation in international strategic alliances: An empirical test of the role of trust and tacitness. *Journal of Management Studies*, 46, 1031-1056.

- NIESTEN, E. & JOLINK, A. 2015. The impact of alliance management capabilities on alliance attributes and performance: a literature review. *International Journal of Management Reviews*, 17, 69-100.
- NING, Y. & LING, F. Y. Y. 2013. Comparative study of drivers of and barriers to relational transactions faced by public clients, private contractors and consultants in public projects. *Habitat International*, 40, 91-99.
- NONAKA, I. 2008. *The knowledge-creating company*, Brighton, Mass., Harvard Business Review Press.
- NORD, T. 2012. Cooperative engagement to define and deliver client value in the construction industry. *Modelling Value*. Springer.
- NORZAILAN, Z., YUSOF, S. M. & OTHMAN, R. 2016. Developing strategic leadership competencies. *Journal of Advanced Management Science Vol*, 4.
- O'NEILL, T. 2014. Digital Railway—Opportunities to Enable Innovation and Sustainability.
- OBURAI, P. & BAKER, M. Empirical Research into Collaborative Alliances in Industrial Markets: A Case for a Balanced Approach to Theory Building. Berlin: 28th EMAC Conference, 1999.
- OGWUELEKA, A. C. & MARITZ, M. J. 2013. A review of incentive issues in the South African construction industry: The prospects and challenges. *ICCREM 2013: Construction and Operation in the Context of Sustainability*.
- OLADINRIN, O. T. & HO, C. M.-F. 2016. Enabling ethical code embeddedness in construction organizations: A review of process assessment approach. *Science and engineering ethics*, 22, 1193-1215.
- OLIVER, C. 1990. Determinants of interorganizational relationships: Integration and future directions. *Academy of management review*, 15, 241-265.
- OYEWOBI, L. O., WINDAPO, A. O. & ROTIMI, J. O. B. 2015. Measuring strategic performance in construction companies: a proposed integrated model. *Journal of Facilities Management*, 13, 109-132.
- OZCAN, P. & SANTOS, F. M. 2015. The market that never was: Turf wars and failed alliances in mobile payments. *Strategic management journal*, 36, 1486-1512.
- PAL, R., WANG, P. & LIANG, X. 2017. The critical factors in managing relationships in international engineering, procurement, and construction (IEPC) projects of Chinese organizations. *International Journal of Project Management*, 35, 1225-1237.
- PALACIOS, J. L., GONZALEZ, V. & ALARCÓN, L. F. 2014. Selection of third-party relationships in construction. *Journal of Construction Engineering and Management*, 140, B4013005.
- PALLANT, J. 2013. *SPSS survival manual*, McGraw-Hill Education (UK).
- PARISE, S. & SASSON, L. 2002. Leveraging knowledge management across strategic alliances. *Ivey Business Journal*, 66, 41-47.
- PARK, J. & LEE, J. 2014. Knowledge sharing in information systems development projects: Explicating the role of dependence and trust. *Int. J. Proj. Manag.*, 32, 153-165.
- PARKHE, A. 1993. Strategic alliance structuring: A game theoretic and transaction cost examination of interfirm cooperation. *Academy of management journal*, 36, 794-829.
- PATEL, H., PETTITT, M. & WILSON, J. R. 2012. Factors of collaborative working: A framework for a collaboration model. *Applied ergonomics*, 43, 1-26.
- PATELI, A. G. 2009. Decision making on governance of strategic technology alliances. *Management Decision*, 47, 246-270.
- PATHIRAGE, C., AMARATUNGA, R. & HAIGH, R. 2005. Knowledge management research within the built environment: Research methodological perspectives.

- PATHIRAGE, C., AMARATUNGA, R. & HAIGH, R. 2008. The role of philosophical context in the development of research methodology and theory. *The Built and Human Environment Review*, 1, 1-10.
- PATTON, M. Q. 2002. Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative social work*, 1, 261-283.
- PEARCE II, J. A. & HATFIELD, L. 2002. Performance effects of alternative joint venture resource responsibility structures. *Journal of Business Venturing*, 17, 343-364.
- PECK, R., OLSEN, C. & DEVORE, J. L. 2015. *Introduction to statistics and data analysis*, Cengage Learning.
- PESÄMAA, O. & HAIR JR, J. F. 2008. Cooperative strategies for improving the tourism industry in remote geographic regions: An addition to trust and commitment theory with one key mediating construct. *Scandinavian Journal of Hospitality and Tourism*, 8, 48-61.
- PESCH, R., BOUNCKEN, R. B. & KRAUS, S. 2016. Effects of divergent communication schemes in new product development alliances. *Management Research Review*, 39, 289-309.
- PETTY, N. J., THOMSON, O. P. & STEW, G. 2012. Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. *Manual therapy*, 17, 378-384.
- POLANYI, M. 2009. *The tacit dimension*, Chicago University of Chicago Press.
- PORTER, M. E. 1985. *Competitive advantage: creating and sustaining superior performance*, New York, Free Press.
- POST, C., RAHMAN, N. & MCQUILLEN, C. 2015. From board composition to corporate environmental performance through sustainability-themed alliances. *Journal of Business Ethics*, 130, 423-435.
- PRASHANT, K. & HARBIR, S. 2009. Managing strategic alliances: what do we know now, and where do we go from here? *Academy of management perspectives*, 23, 45-62.
- PULIDO, R., BRUN, A. & GARCIA-SANCHEZ, A. Pulido, R. Brun. A. Garcia-Sanchez, A." Are companies taking advantage of joint decision in the production planning?" Proceedings of " 21st EurOMA conference". " 21st EurOMA conference", 2014. ITA, 1-6.
- QUINTANA-GARCÍA, C. & BENAVIDES-VELASCO, C. A. 2011. Knowledge organisation in R&D alliances: its impact on product innovation. *Technology Analysis & Strategic Management*, 23, 1047-1061.
- QUINTON, S. & SMALLBONE, T. 2005. The troublesome triplets: issues in teaching reliability, validity and generalisation to business students. *Teaching in Higher Education*, 10, 299-311.
- RAES, E., DECUYPER, S., LISMONT, B., VAN DEN BOSSCHE, P., KYNDT, E., DEMEYERE, S. & DOCHY, F. 2013. Facilitating team learning through transformational leadership. *Instructional Science*, 41, 287-305.
- RAHMAN, M. M. & KUMARASWAMY, M. M. 2008. Relational contracting and teambuilding: Assessing potential contractual and noncontractual incentives. *Journal of Management in Engineering*, 24, 48-63.
- RAHMAN, S. H. A., ENDUT, I. R., FAISOL, N. & PAYDAR, S. 2014. The importance of collaboration in construction industry from contractors' perspectives. *Procedia-Social and Behavioral Sciences*, 129, 414-421.
- RAI, A., BORAH, S. & RAMAPRASAD, A. 1996. Critical Success Factors for Strategic Alliances in the Information Technology Industry: An Empirical Study. *Decision Sciences*, 27, 141-155.

- RAILWAY, N. 2014a. Delivering a better railway for a better Britain. *Network Rail*, accessed, 19.
- RAILWAY, N. 2014b. *Delivering a better railway for a better Britain: 2014-19 delivery plan* [Online].
- RAO, B. P. & REDDY, S. K. 1995. A dynamic approach to the analysis of strategic alliances. *International Business Review*, 4, 499-518.
- RAPOPORT, A. 1974. Game theory as a theory of conflict resolution. JSTOR.
- REALWAY, J. C., ROLDÁN, J. L. & LEAL, A. 2014. From entrepreneurial orientation and learning orientation to business performance: analysing the mediating role of organizational learning and the moderating effects of organizational size. *British Journal of Management*, 25, 186-208.
- REUER, J. J. & ARIÑO, A. 2007. Strategic alliance contracts: Dimensions and determinants of contractual complexity. *Strategic Management Journal*, 28, 313-330.
- REUER, J. J., ZOLLO, M. & SINGH, H. 2002. Post-formation dynamics in strategic alliances. *Strategic Management Journal*, 23, 135-151.
- RHODES, C. 2018. Construction industry: statistics and policy.
- RICCIARDI, F. 2014. *Innovation processes in business networks: Managing inter-organizational relationships for innovational excellence*, Springer Science & Business Media.
- RIKKIEV, A., SEPPÄNEN, M. & MÄKINEN, S. 2012. Product convergence perspective on collaboration success factors.
- RILEY, J. M., KLEIN, R., MILLER, J. & SRIDHARAN, V. 2016. How internal integration, information sharing, and training affect supply chain risk management capabilities. *International Journal of Physical Distribution & Logistics Management*, 46, 953-980.
- RING, P. S. & VAN DE VEN, A. H. 1992. Structuring cooperative relationships between organizations. *Strategic management journal*, 13, 483-498.
- RMT, H. D. 2017. Collaborative working is the key to the future of rail infrastructure
- ROBINSON, D. T. & STUART, T. E. 2007. Financial contracting in biotech strategic alliances. *The Journal of Law and Economics*, 50, 559-596.
- ROBSON, C. 2002. *Real world research: A resource for social scientists and practitioners-researchers*, Massachusetts, Blackwell
- ROBSON, M. J., KATSIKEAS, C. S. & BELLO, D. C. 2008. Drivers and performance outcomes of trust in international strategic alliances: The role of organizational complexity. *Organization Science*, 19, 647-665.
- ROBSON, M. J., SKARMEAS, D. & SPYROPOULOU, S. 2006. Behavioral attributes and performance in international strategic alliances: Review and future directions. *International Marketing Review*, 23, 585-609.
- RUEKERT, R. W. & WALKER JR, O. C. 1987. Marketing's interaction with other functional units: A conceptual framework and empirical evidence. *Journal of Marketing*, 1-19.
- RUMSEY, D. J. 2007. *Intermediate statistics for dummies*, John Wiley & Sons.
- RUSSO, M. & CESARANI, M. 2017. Strategic Alliance Success Factors: A Literature Review on Alliance Lifecycle. *International Journal of Business Administration*, 8, 1.
- RUTLEDGE, M. 2011. A framework and tools to strengthen strategic alliances. *OD Practitioner*, 43, 23-27.
- RUXTON, G. D. & BEAUCHAMP, G. 2008. Time for some a priori thinking about post hoc testing. *Behavioral Ecology*, 19, 690-693.
- SAEBI, T. 2011. Successfully managing alliance portfolios: An alliance capability view.
- SALISU, Y. & BAKAR, L. J. A. 2018. Strategic Alliance and the Performance of SMEs in Developing Economies: The Mediating Role of Innovation Strategy. *Asian Journal of Multidisciplinary Studies*, 6.

- SAMBASIVAN, M., SIEW-PHAIK, L., ABIDIN MOHAMED, Z. & CHOY LEONG, Y. 2011. Impact of interdependence between supply chain partners on strategic alliance outcomes: Role of relational capital as a mediating construct. *Management Decision*, 49, 548-569.
- SAMBASIVAN, M., SIEW-PHAIK, L., MOHAMED, Z. A. & LEONG, Y. C. 2013. Factors influencing strategic alliance outcomes in a manufacturing supply chain: role of alliance motives, interdependence, asset specificity and relational capital. *International Journal of Production Economics*, 141, 339-351.
- SARHAN, S. & FOX, A. 2013. Barriers to implementing lean construction in the UK construction industry. *The Built & Human Environment Review*.
- SARKAR, M. B., ECHAMBADI, R., CAVUSGIL, S. T. & AULAKH, P. S. 2001. The influence of complementarity, compatibility, and relationship capital on alliance performance. *Journal of the academy of marketing science*, 29, 358-373.
- SAUNDERS, M., LEWIS, P. & THORNHILL, A. 2009. Understanding research philosophies and approaches. *Research methods for business students*, 4, 106-135.
- SAUNDERS, M., LEWIS, P. & THORNHILL, A. 2012. *Research methods for business students*, Harlow, Pearson.
- SAUNDERS, M., LEWIS, P. & THORNHILL, A. 2016. *Research methods for business students*, Delhi, Pearson Education India.
- SAUNDERS, M. N. 2011. *Research methods for business students*, Delhi, Pearson Education India.
- SAUNILA, M., PEKKOLA, S. & UKKO, J. 2014. The relationship between innovation capability and performance: The moderating effect of measurement. *International Journal of Productivity and Performance Management*, 63, 234-249.
- SAXTON, T. 1997. The effects of partner and relationship characteristics on alliance outcomes. *Academy of management journal*, 40, 443-461.
- SCHILKE, O. & LUMINEAU, F. 2018. The double-edged effect of contracts on alliance performance. *Journal of Management*, 44, 2827-2858.
- SCHÖTTLE, A. & GEHBAUER, F. 2012. Incentive systems to support collaboration in construction projects. *Proceedings for the International Group for Lean Construction, San Diego, CA, USA, Montezuma Publishing, San Diego, CA*.
- SCHREIER, M. 2012. *Qualitative content analysis in practice*, Sage Publications.
- SCHREINER, M., KALE, P. & CORSTEN, D. 2009. What really is alliance management capability and how does it impact alliance outcomes and success? *Strategic Management Journal*, 30, 1395-1419.
- SCHUSTER, T. & HOLTBRUGGE, D. 2014. Resource Dependency, Innovative Strategies, and Firm Performance in BOP Markets. *J. Prod. Innov. Manage.*, 31, 43-59.
- SCHWEITZER, J. 2014. Leadership and innovation capability development in strategic alliances. *Leadersh. Org. Dev. J.*, 35, 442-469.
- SCHWEITZER, J. & GUDERGAN, S. 2010. Leadership behaviours as ongoing negotiations and their effects on knowledge and innovation capabilities in alliances. *International Journal of Knowledge Management Studies*, 4, 176-197.
- SEIDMAN, I. 2006. *Interviewing as qualitative research: A guide for researchers in education and the social sciences*, Teachers college press.
- SEKARAN, U. 2006. *Research methods for business: A skill building approach*, John Wiley & Sons.
- SEKARAN, U. & BOUGIE, R. 2016. *Research methods for business: A skill building approach*, John Wiley & Sons.
- SELNES, F. & SALLIS, J. 2003. Promoting relationship learning. *Journal of Marketing*, 67, 80-95.



- SENGUPTA, S., KRAPFEL, R. E. & PUSATERI, M. A. 2000. An empirical investigation of key account salesperson effectiveness. *Journal of Personal Selling & Sales Management*, 20, 253-261.
- SEPPÄNEN, R., BLOMQVIST, K. & SUNDQVIST, S. 2007. Measuring inter-organizational trust—a critical review of the empirical research in 1990–2003. *Industrial marketing management*, 36, 249-265.
- SERIGATI, F. C. & AZEVEDO, P. F. D. 2013. Comprometimento, características da cooperativa e desempenho financeiro: uma análise em painel com as cooperativas agrícolas paulistas.
- SEXTON, M. PhD Research: Axiological Purposes, Ontological Cages and Epistemological Keys. Research Institute for the Built and Human Environment Research Methodology Workshop, 2007.
- SHE, L. Trust, mistrust and distrust in alliancing. Procs 29th Annual ARCOM Conference, 2013.
- SHIN, J.-K., PARK, M.-S. & INGRAM, R. 2012. Market orientation and communication methods in international strategic alliances. *Journal of Business Research*, 65, 1606-1611.
- SKARMEAS, D., KATSIKEAS, C. S. & SCHLEGELMILCH, B. B. 2002. Drivers of commitment and its impact on performance in cross-cultural buyer-seller relationships: The importer's perspective. *Journal of International Business Studies*, 33, 757-783.
- SLUYTS, K., MATTHYSSENS, P., MARTENS, R. & STREUKENS, S. 2011. Building capabilities to manage strategic alliances. *Industrial Marketing Management*, 40, 875-886.
- SOEKIMAN, A., PRIBADI, K., SOEMARDI, B. & WIRAHADIKUSUMAH, R. 2011. Factors relating to labor productivity affecting the project schedule performance in Indonesia. *Procedia engineering*, 14, 865-873.
- SOH, P.-H. 2003. The role of networking alliances in information acquisition and its implications for new product performance. *Journal of Business Venturing*, 18, 727-744.
- SOLESVIK, M. Z. & WESTHEAD, P. 2010. Partner selection for strategic alliances: case study insights from the maritime industry. *Industrial Management & Data Systems*, 110, 841-860.
- SOMPONG, K., IGEL, B. & LAWTON SMITH, H. 2014. Strategic alliance motivation for technology commercialization and product development. *Management Research Review*, 37, 518-537.
- SONG, H., SAMIR RANJAN, C. & YU, K.-K. 2009. Access flexibility, trust and performance in achieving competitiveness: An empirical study of Chinese suppliers and distributors. *Journal of Chinese Economic and Foreign Trade Studies*, 2, 31-46.
- SONG, M., DYER, B. & THIEME, R. J. 2006. Conflict management and innovation performance: An integrated contingency perspective. *Journal of the Academy of Marketing Science*, 34, 341-356.
- SPENCER, X. S. Y., JOINER, T. A. & SALMON, S. 2009. Differentiation strategy, performance measurement systems and organizational performance: Evidence from Australia. *International Journal of Business*, 14, 83.
- SQUIRE, B., COUSINS, P. D. & BROWN, S. 2009. Cooperation and Knowledge Transfer within Buyer–Supplier Relationships: The Moderating Properties of Trust, Relationship Duration and Supplier Performance \*. *British Journal of Management*, 20, 461-477.
- STAHL, G. K. & SITKIN, S. B. 2005. Trust in mergers and acquisitions. *Mergers and acquisitions: Managing culture and human resources*, 82-102.

- STAYKOVA, G. & UNDERWOOD, J. 2017. Assessing collaborative performance on construction projects through knowledge exchange: A UK rail strategic alliance case study. *Engineering, Construction and Architectural Management*, 24, 968-987.
- STEENSMA, H. K., MARINO, L., WEAVER, K. M. & DICKSON, P. H. 2000. The influence of national culture on the formation of technology alliances by entrepreneurial firms. *Academy of management journal*, 43, 951-973.
- STEINAR, K. 1996. *Interviews: An introduction to qualitative research interviewing*, Lund, Studentlitteratur.
- STEINHILBER, S. 2013. *Strategic Alliances: three ways to make them work*, Harvard Business Press.
- SUCIPTO, E., OKTAVIANI, R. & RIZAL, R. 2015. The effects of partnership and entrepreneurship toward business performance of oyster mushroom (*pleurotusostreatus*). *Indonesian Journal of Business and Entrepreneurship (IJBE)*, 1, 32.
- SUTER, W. N. 2012. *Introduction to educational research: A critical thinking approach*, London, SAGE.
- SUTRISNA, M. Research methodology in doctoral research: understanding the meaning of conducting qualitative research. Proceedings of the Association of Researchers in Construction Management (ARCOM) Doctoral Workshop held in Liverpool John Moores University. Conducted by ARCOM Liverpool, UK: ARCOM, 2009.
- SVEJENOVA, S., KOZA, M. & LEWIN, A. A perspective on inter-firm relationships, globalization and the role of trust. 5th International Workshop Strategic Alliances: Governance and Contracts, IESE Business School: Barcelona, Spain, 2005.
- TAVALLAEI, R., HOSSEINALIPOUR, M. & MOHEBIFAR, A. 2015. Top critical success factors for enterprises to benefit a prosperous learning through strategic alliances in developing countries. *Procedia-Social and Behavioral Sciences*, 194, 174-180.
- TAYLOR, A. 2005. An operations perspective on strategic alliance success factors: An exploratory study of alliance managers in the software industry. *International Journal of Operations & Production Management*, 25, 469-490.
- TEDDLIE, C. & TASHAKKORI, A. 2009. *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*, Sage.
- TEDDLIE, C. & TASHAKKORI, A. 2010. Overview of contemporary issues in mixed methods research. *Handbook of mixed methods in social and behavioral research*, 2, 1-41.
- TEDDLIE, C. & YU, F. 2007. Mixed methods sampling: A typology with examples. *Journal of mixed methods research*, 1, 77-100.
- TEECE, D. & PISANO, G. 1994. The dynamic capabilities of firms: an introduction. *Industrial and corporate change*, 3, 537-556.
- THOMAS, D. R. 2006. A general inductive approach for analyzing qualitative evaluation data. *American journal of evaluation*, 27, 237-246.
- THOMAS, G. & THOMAS, M. 2005. *Construction partnering and integrated teamworking*, John Wiley & Sons.
- THUNBERG, M. & FREDRIKSSON, A. 2018. Bringing planning back into the picture—How can supply chain planning aid in dealing with supply chain-related problems in construction? *Construction Management and Economics*, 36, 425-442.
- THUNBERG, M., RUDBERG, M. & KARRBOM GUSTAVSSON, T. 2017. Categorising on-site problems: A supply chain management perspective on construction projects. *Construction innovation*, 17, 90-111.

- THUY, L. X. & QUANG, T. 2005. Relational capital and performance of international joint ventures in Vietnam. *Asia Pacific Business Review*, 11, 389-410.
- TJOSVOLD, D. & SU, F. 2007. Managing anger and annoyance in organizations in China: The role of constructive controversy. *Group & Organization Management*, 32, 260-289.
- TODEVA, E. & KNOKE, D. 2005. Strategic alliances and models of collaboration. *Management Decision*, 43, 123-148.
- TOLMIE, A., MUIJS, D. & MCATEER, E. 2011. *Quantitative methods in educational and social research using SPSS*, McGraw-Hill Education (UK).
- TROCHIM, W. K. M. 2006. Types of reliability. *Research Methods Knowledge Base, Web Center for Social Research Methods* [Online]. Available: <http://www.socialresearchmethods.net/kb/reotypes.php>.
- TSANG, E. W., NGUYEN, D. T. & ERRAMILI, M. K. 2004. Knowledge acquisition and performance of international joint ventures in the transition economy of Vietnam. *Journal of International Marketing*, 12, 82-103.
- TUCKER, G. J. 2009. Can the whole life cost of railway track be reduced through the effective management of tangential wheel-rail loading?
- ULRICH, D., JICK, T. & VON GLINOW, M. A. 1993. High-impact learning: Building and diffusing learning capability. *Organizational dynamics*, 22, 52-66.
- VAARA, E., SARALA, R., STAHL, G. K. & BJÖRKMAN, I. 2012. The impact of organizational and national cultural differences on social conflict and knowledge transfer in international acquisitions. *Journal of Management Studies*, 49, 1-27.
- VAARA, E., TIENARI, J. & BJÖRKMAN, I. 2003. Knowledge transfer around “best practices”: a sensemaking perspective. *Nordiske Organisasjonsstudier*, 37-57.
- VAIDYA, S. 2011. Understanding strategic alliances: An integrated framework. *Journal of Management Policy and Practice*, 12, 90.
- VANPOUCKE, E., BOYER, K. K. & VEREECKE, A. 2009. Supply chain information flow strategies: an empirical taxonomy. *International Journal of Operations & Production Management*, 29, 1213-1241.
- VANVACTOR, J. D. 2012. Collaborative leadership model in the management of health care. *Journal of Business Research*, 65, 555-561.
- VAUX, J. S. & KIRK, W. M. 2018. Relationship Conflict in Construction Management: Performance and Productivity Problem. *Journal of Construction Engineering and Management*, 144, 04018032.
- VILASINI, N., NEITZERT, T., ROTIMI, J. O. & WINDAPO, A. O. 2012. A framework for sub-contractor integration in alliance contracts.
- VLOSKY, R. P. & WILSON, E. J. 1997. Partnering and traditional relationships in business marketing: an introduction to the special issue. *Journal of Business Research*, 39, 1-4.
- VONORTAS, N. & ZIRULIA, L. 2015. Strategic technology alliances and networks. *Economics of Innovation and New Technology*, 24, 490-509.
- VOSS, C., TSIKRIKTSIS, N. & FROHLICH, M. 2002. Case research in operations management. *International journal of operations & production management*, 22, 195-219.
- WALKER, D. & HAMPSON, K. 2008. *Procurement strategies: A relationship-based approach*, John Wiley & Sons.
- WALKER, W. 2005. The strengths and weaknesses of research designs involving quantitative measures. *Journal of research in nursing*, 10, 571-582.
- WALTER, J., KELLERMANN, F. W. & LECHNER, C. 2010. Decision making within and between organizations rationality, politics, and alliance performance. *Journal of Management*, 38, 1582-1610.

- WALTER, S. G., WALTER, A. & MÜLLER, D. 2015a. Formalization, Communication Quality, and Opportunistic Behavior in R & D Alliances between Competitors. *Journal of Product Innovation Management*, 32, 954-970.
- WALTER, S. G., WALTER, A. & MÜLLER, D. 2015b. Formalization, communication quality, and opportunistic behavior in R&D alliances between competitors. *Journal of Product Innovation Management*, 32, 954-970.
- WARD, V., SMITH, S., HOUSE, A. & HAMER, S. 2012. Exploring knowledge exchange: a useful framework for practice and policy. *Social science & medicine*, 74, 297-304.
- WASSMER, U. 2010. Alliance portfolios: A review and research agenda. *Journal of management*, 36, 141-171.
- WEAVER, T. E. 2008. Enhancing multiple disciplinary teamwork. *Nursing outlook*, 56, 108-114. e2.
- WELBOURNE, T. M., NECK, H. & DALE MEYER, G. 2012. The entrepreneurial growth ceiling: using people and innovation to mitigate risk and break through the growth ceiling in initial public offerings. *Management Decision*, 50, 778-796.
- WELSH, E. Dealing with data: Using NVivo in the qualitative data analysis process. Forum Qualitative Sozialforschung/Forum: Qualitative Social Research, 2002.
- WENWEN, L. & BAIYU, L. 2015. Understanding the impacts of inter-organizational communication on strategic alliance performance and stability. *African Journal of Business Management*, 9, 735-740.
- WIKIPEDIA 2019. Northern Hub.
- WILLIAMSON, O. E. 1975. *Markets and hierarchies: antitrust analysis and implications*, Free Press.
- WILLIAMSON, O. E. 1985. *The economic institutions of capitalism*, New York, Free Press.
- WILLIAMSON, O. E. 1991. Comparative economic organization: The analysis of discrete structural alternatives. *Administrative science quarterly*, 269-296.
- WINTER, S. G. 2003. Understanding dynamic capabilities. *Strategic management journal*, 24, 991-995.
- WITTMANN, C. M., HUNT, S. D. & ARNETT, D. B. 2009. Explaining alliance success: Competences, resources, relational factors, and resource-advantage theory. *Industrial Marketing Management*, 38, 743-756.
- WONG, W. K., CHEUNG, S. O., YIU, T. W. & PANG, H. Y. 2008. A framework for trust in construction contracting. *International Journal of Project Management*, 26, 821-829.
- WOODS, M., MACKLIN, R. & LEWIS, G. K. 2016. Researcher reflexivity: exploring the impacts of CAQDAS use. *International Journal of Social Research Methodology*, 19, 385-403.
- WU, G., ZHAO, X. & ZUO, J. 2017. Relationship between project's added value and the trust–conflict interaction among project teams. *Journal of Management in Engineering*, 33, 04017011.
- WU, J. & CALLAHAN, J. 2005. Motive, form and function of international R&D alliances: Evidence from the Chinese IT industry. *The journal of high technology management research*, 16, 173-191.
- XIA, J. 2011. Mutual dependence, partner substitutability, and repeated partnership: The survival of cross-border alliances. *Strategic Management Journal*, 32, 229-253.
- XU, T., SMITH, N. & BOWER, D. 2005. Forms of collaboration and project delivery in Chinese construction markets: Probable emergence of strategic alliances and design/build. *Journal of Management in Engineering*, 21, 100-109.
- Y. LI, E., LONG, Y., LI, P. & YOU, B. 2014. Knowledge transfer, governance mechanisms in alliance and environmental uncertainty: an empirical study. *Chinese Management Studies*, 8, 438-472.

- YAMAKAWA, Y., YANG, H. & LIN, Z. J. 2011. Exploration versus exploitation in alliance portfolio: Performance implications of organizational, strategic, and environmental fit. *Research Policy*, 40, 287-296.
- YANG, H., ZHENG, Y. & ZHAO, X. 2014. Exploration or exploitation? Small firms' alliance strategies with large firms. *Strategic Management Journal*, 35, 146-157.
- YANG, J., LAI, K. H., WANG, J., RAUNIAR, R. & XIE, H. 2015. Strategic alliance formation and the effects on the performance of manufacturing enterprises from supply chain perspective. *International journal of production research*, 53, 3856-3870.
- YASIR YASIN, F. & MAQSOOD AHMAD, S. 2013. The role of trust on the performance of strategic alliances in a cross-cultural context A study of the UAE. *Benchmarking: An International Journal*, 20, 106-128.
- YASUDA, H. 2005. Formation of strategic alliances in high-technology industries: comparative study of the resource-based theory and the transaction-cost theory. *Technovation*, 25, 763-770.
- YAYAVARAM, S., SRIVASTAVA, M. K. & SARKAR, M. 2018. Role of search for domain knowledge and architectural knowledge in alliance partner selection. *Strategic Management Journal*, 39, 2277-2302.
- YEH, W.-C., TSENG, M.-H. & LEE, C.-C. 2018. Effects of Organizational Control, Trust, Relationship Commitment, and Partnerships on Relationship Performance in the Business Waste Industry. *International Journal of Asian Social Science*, 8, 881-897.
- YEUNG, J. F., CHAN, A. P., CHAN, D. W. & LI, L. K. 2007. Development of a partnering performance index (PPI) for construction projects in Hong Kong: a Delphi study. *Construction Management and Economics*, 25, 1219-1237.
- YEUNG, J. H. Y., SELEN, W., ZHANG, M. & HUO, B. 2009. The effects of trust and coercive power on supplier integration. *International Journal of Production Economics*, 120, 66-78.
- YILMAZ, K. 2013. Comparison of quantitative and qualitative research traditions: Epistemological, theoretical, and methodological differences. *European Journal of Education*, 48, 311-325.
- YIN, R. K. 2009. *Case Study Research: Design and Methods*, Thousand Oaks, Calif., Sage.
- YIN, R. K. 2014. *Case study research: Design and methods*, Thousand Oaks, Calif., Sage.
- YIN, X. & SHANLEY, M. 2008. Industry determinants of the “merger versus alliance” decision. *Academy of Management Review*, 33, 473-491.
- YITMEN, I. 2013. Organizational cultural intelligence: a competitive capability for strategic alliances in the international construction industry. *Project Management Journal*, 44, 5-25.
- YOUNGTAE, C., RICHARD, T. H., RICHARD, P. B. & PAUL, A. F. 2010. Communication, utilization, and performance in international strategic alliances An investigation of the post-formation process. *International Journal of Commerce and Management*, 20, 8-25.
- YU, C. H. 2005. Reliability and validity. *Educational Assessment*, 2240-0524.
- YU, J. & LEUNG, M.-Y. 2018. Structural stakeholder model in public engagement for construction development projects. *Journal of Construction Engineering and Management*, 144, 04018046.
- ZAHEER, A., MCEVILY, B. & PERRONE, V. 1998. Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance. *Organization science*, 9, 141-159.
- ZAINAL, Z. 2007. Case study as a research method. *Jurnal Kemanusiaan*, 9.
- ZAMAWE, F. C. 2015. The implication of using NVivo software in qualitative data analysis: Evidence-based reflections. *Malawi Medical Journal*, 27, 13-15.

- ZENG, F., CHEN, Y., DONG, M. C. & CHI, Y. 2016. The Use of Accommodation in Buyer–Seller Relationships: Encouraging or Controlling Opportunism in Business Markets Middle-grounds. *Journal of Business-to-Business Marketing*, 23, 47-62.
- ZHANG, M. & HUO, B. 2013. The impact of dependence and trust on supply chain integration. *International Journal of Physical Distribution & Logistics Management*, 43, 544-563.
- ZHANG, M. J. 2007. Is support for top managers' dynamic capabilities, environmental dynamism, and firm performance: an empirical investigation.
- ZHANG, S. B., FU, Y. F., GAO, Y. & ZHENG, X. D. 2016. Influence of Trust and Contract on Dispute Negotiation Behavioral Strategy in Construction Subcontracting. *Journal of Management in Engineering*, 32, 04016001.
- ZHAO, X., HUO, B., FLYNN, B. B. & YEUNG, J. H. Y. 2008. The impact of power and relationship commitment on the integration between manufacturers and customers in a supply chain. *Journal of Operations Management*, 26, 368-388.
- ZHAO, Y. & LAVIN, M. 2012. An empirical study of knowledge transfer in working relationships with suppliers in new product development. *International Journal of Innovation Management*, 16, 1250013.
- ZHENG, Y. & YANG, H. 2015. Does familiarity foster innovation? The impact of alliance partner repeatedness on breakthrough innovations. *Journal of Management Studies*, 52, 213-230.
- ZOOGAH, D. B., NOE, R. A. & SHENKAR, O. 2015. Shared mental model, team communication and collective self-efficacy: an investigation of strategic alliance team effectiveness. *International Journal of Strategic Business Alliances*, 4, 244-270.
- ZOU, S., TAYLOR, C. R. & OSLAND, G. E. 1998. The EXPERF scale: a cross-national generalized export performance measure. *Journal of international Marketing*, 6, 37-58.

# APPENDICES

## APPENDIX 1: The Interview Questions

Interview reference number

### *Semi-structured Interview Guideline*

#### **Introduction**

The main aim of this interview is to understand the interviewee's perspective about significant behavioural success and behavioural negative factors that are impacting performance of strategic alliances specifically in railway industry in the UK. The data collected from the interviews will help the researcher understand the impact of the behavioural success factors and behavioural negative factors on the performance of strategic railway alliances they currently exist in this context. Accordingly, there are not right or wrong answers for the upcoming questions; rather it is a matter of reflecting the interviewee's experience with the phenomena as they were conceived.

#### **Your rights**

You may decide to stop being a part of the research study at any time without explanation. You have the right to ask that any data you have supplied to that point be withdrawn or destroyed. You have the right to omit or refuse to answer or respond to any question that is asked of you. You have the right to have your questions about the procedures answered (unless answering these questions would interfere with the study's outcome). If you have any questions as a result of reading this information sheet, you may query the researcher at any time.

#### **Section 1: Researcher to complete:**

<b>General information of the interviewee</b>	
Name of interviewee	
Job title	
Expertise/ Specialisation	
Age category	
Education/ Qualification background	
How many years in the Railway industry?	

**Section 2: To know if the alliance players understand the main concept of strategic alliance as described in alliances literatures.**

**2.1) Explore the Concept of Strategic Alliances**

- a) Have you ever been involved in alliancing?
- b) Could you describe the alliance process?
- c) What do you understand about it?
- d) What are the main motives for creating/ involving strategic alliance?
- e) What does your firm get from your alliance?
- f) What does your firm give to the alliance?
- g) Do you believe that establishing a strategic alliance with other firm will prevent competition between these firms?

**Section 3: To know if the alliance players understand behavioural success factors as described in alliances literatures.**

**3.1) Success Factors**

- a) What in your opinion are the main behavioural factors participate to achieve success of the performance in your strategic alliance?
- b) What in your opinion are the main behavioural factors required to achieve successful in the performance of your strategic alliance?

**3.2) Negative Factors**

- a) What in your opinion are the main behavioural factors participate to the failure of strategic alliances?
- b) What in your opinion are the main behavioural factors to the failure of strategic alliances?

**3.3) Interaction Factors**

- a) For the factors discussed do all factors need to be present or are some behavioural success factors more important than other?
- b) For the negative factors discussed does each individual factor impact the performance of construction alliances, and what are factors more important than others?

**Section 4: To know if the players' targets have achieved when the alliance formed.**

**Strategic Railway Alliances Performance**



What are the main indicators can measure the performance in your strategic alliance?

To what extent do you believe:

- a) This alliance has enabled you to achieve greater profits than you could have without the alliance?
- b) Your goals have been met in the alliance? How?
- c) Your market position and reputation have been enhanced through the alliance? How?
- d) Do you think all partners are satisfied regarding the alliance process that is achieved?

## APPENDIX 2: The Survey Questionnaire

Reference number

### QUESTIONNAIRE

**Research Title: DEVELOPMENT A FRAMEWORK TO EVALUATE THE IMPACT OF BEHAVIOURAL SUCCESS FACTORS AND BEHAVIOURAL NEGATIVE FACTORS ON THE PERFORMANCE OF STRATEGIC RAILWAY ALLIANCES IN THE UK**

This questionnaire is based on an ongoing PhD which seeks to undertake sets out to examine behavioural success factors and behavioural negative factors in Northern Hub Alliance. The questionnaire intends to capture the behavioural success factors and behavioural negative factors in the Northern Hub Alliance. As such this questionnaire is divided into five major sections based on the

**Section 1:** General information.

**Section 2:** strategic alliances concept

**Section 3:** Behavioural success factors and behavioural negative factors in strategic railway alliances.

**Section 4:** strategic alliance performance

**Scope:** examine behavioural success factors and behavioural negative factors of strategic railway alliances in the Northern Hub Alliance

**Confidentiality:** The information collected will be used for the sole purpose of this study and for academic publications. The findings of the study will not be attributed to any specific personnel.

Please return the completed questionnaire on or before:

**Researcher**

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**Note:** Network Rail responders: The questions are generally drafted as if you are answering as a contractor. Where this applies please can Network Rail responders answer the questions in

the context that is most applicable to their company – e.g. questions regard profit for a Contractor would mean making savings against budget for Network Rail.

## Section 1: General information

### 1. Your present job title:

- Engineer     Contractor     Sub-Contractor     Other (please specify)

### 2. Years of experience with strategic alliance in this company:

- 1 to 5 years     6 to 10 years     11 to 15 years     16 to 20 years  
 20 and above

### 3. What is your age category?

- 20 to 24 years     25 to 34 years     35 to 44 years     45 to 54 years  
 55 years and above

### 4. What is your highest level of qualification?

- Bachelor     Diploma     Master     PhD     Other (Please specify)

### 5. How long have you been in your own organisation?

- 1 to 5 years     6 to 10 years     11 to 15 years     16 to 20 years  
 20 and above

### 6. Have you been involved previously within the strategic alliance    Yes    No

## Section 2: Strategic alliance concept.

The following tables present the criteria or indicators of motivations and benefits the companies can gain it from entering the strategic alliance. Based on your experience with Northern Hub Alliance, please tick the most appropriate box on the regarding the agreement of the criteria during the alliance project.

- **Note: the Likert scale which used representing: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree**

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Based on your experience with Northern Hub Alliance, the main benefits can organisations be gained through entering alliances is:					
Enhanced the profit					
Enhanced the reputation					
Provision of necessary resources					
Provision of necessary technology					
<b>Other (specify):</b>					

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Based on your experience with Northern Hub Alliance, the main benefits can organisations be gained through entering alliances is:					
Enhanced the profit					
Enhanced the reputation					
Provision of necessary resources					
Provision of necessary technology					
<b>Other (specify):</b>					

### Section 3 (A): Behavioural success factors of strategic railway alliances

The following table presents the behavioural success factors of strategic railway alliance. Based on your experience with Northern Hub Alliance, please tick the most appropriate scale regarding the agreement of criteria of behavioural success factors.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
<b>Based on your experience within Northern Hub Alliance:</b>					
Trust other partners have enhanced commitment					
Joint commitment has helped to build the relationship					
Mutual communication has helped to exchange learning the skills between partners					
knowledge sharing has increased the value created by the alliance					
Mutual dependency has helped build trust					
Challenging partner's ideas has helped to achieve right decisions					
Understanding alliance objectives has made the staff working together as a team					
the healthy discussion (constructive conflict) has helped build the relationships between partners					
working as a teamwork has improved the quality of project more than working individually					

A good leadership is important to create the alliance vision					
aligned objectives between partners has led to project success					
aligned vision between partners has led to project success					
Selecting the right partners was important to alliance success					
Training on alliance operation has enhanced the self-awareness for partners					
Non-coercive power (democratic power) was critical to achieve an effective decision-making process					
Interaction between partners enhances the alliance success					
accommodating partners inside the alliance helps in delivering performance of the alliance successfully					
<b>Other (specify):</b>					

### Section 3 (B): Behavioural negative factors of strategic railway alliances

The following table presents the behavioural negative factors are impacting the performance of the strategic railway alliance. Please tick the most appropriate scale regarding the agreement of criteria of behavioural negative factors. Please answer below questions with regards to your general Alliancing experience and not merely the Northern Hub Alliance.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Negative conflict between partners will affect the level of trust					
The presence of opportunistic behaviour within alliances will lead to reduced levels of commitment					
Using coercive power (dictatorial power) will lead to conflict					
Lack of guidance for partners to solve problems in the right way will lead to distrust					
Lack of the commitment will lead to reduced motivation for teamwork					
Lack of mutual communication will lead to a non-cohesive team					
Lack of knowledge sharing will reduce the quality of decision making					
A lack of mutual dependency between partners will lead to a loss the trust					
misunderstanding the alliance stages affect the march of success					
misunderstanding the alliance stages affect the march on the performance of the alliance					
<b>Other (specify):</b>					

### Section 4: Strategic railway alliance performance

The following tables present the criteria or indicators of the strategic alliance performance. Based on your experience with Northern Hub Alliance, please tick the most appropriate box on the regarding the agreement of the criteria of performance of strategic construction alliances.

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
<b>Based on your experience with Northern Hub Alliance:</b>					
Working within the alliance enhanced our profitability					
Our goals have been achieved within the alliance					
Our market position has been enhanced through the alliance					
The reputation of Our brand improved through working in the alliance					
Satisfaction with other partners has improved through working in alliance					

### **APPENDIX 3: Participants Invitation Letter**

Dear Mr/Mrs:

I am Wael Jasim Hameed Al-Naseri, researcher in the school of Built Environment/ University of Salford, Manchester, UK.

The research project that I am currently undertaking sets out to evaluate strategic alliances success in the railway industry by evaluating the behavioural success factors and behavioural negative factors that impact the performance of strategic railway alliances. In addition, I am developing strategic guidelines and a framework that enable the structuring and managing of successful strategic alliances performance in the UK railway industry at a fixed point in time.

In my studies, I have noted that company Y has been significantly committed to establishing tactical and strategic alliances with other companies in order to achieve its strategic objectives. Therefore, I am wondering if company Y would be interested in exploring any possibilities of cooperation on academic research to our mutual benefit?

My research project can offer your company a careful evaluation of current strategic alliance as well as suggest a strategic guidelines and framework that can contribute to selecting either alliances with other firms and managing of successful strategic railway alliance performance.

To achieve my research objectives, it is necessary to interview some members of your executive and managerial staff. The interviews will last one hour; all the data collected will be treated in the strictest confidence, which can be guaranteed by confidentiality agreement, if you so wish. In addition, you may decide to stop being a part of the research study at any time without explanation. The data will collect will not contain any personal information. No one will link the data you provided to the identifying information you supplied. Any other ethical issues related to the research philosophy are considered by the researcher and the University of Salford.

At the end of my study, I am willing to present my findings to all interested executives within your organisations.

I hope you will be prepared to co-operate with my research. It will, of course, be my pleasure to talk to you personally about my research. My contact details are:

1- Mobile phone:

2- Email: [w.hameed@edu.salford.ac.uk](mailto:w.hameed@edu.salford.ac.uk)

Yours sincerely,

**Wael Al-Naseri**

**PhD Candidate**

## APPENDIX 4: Ethical Approval Letter

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Research, Innovation and Academic  
Engagement Ethical Approval Panel

Research Centres Support Team  
G0.3 Joule House  
University of Salford  
M5 4WT

T +44(0)161 295 5278

[www.salford.ac.uk/](http://www.salford.ac.uk/)

6 April 2017

**Wael Hameed**

Dear Wael,

**RE: ETHICS APPLICATION ST1617-72 - An examination of the influence of behavioural factors on the success of strategic alliances in the construction industry in the UK**

Based on the information you provided, I am pleased to inform you that your application ST1617-72 has been approved.

If there are any changes to the project and/ or its methodology, please inform the Panel as soon as possible by contacting [S&T-ResearchEthics@salford.ac.uk](mailto:S&T-ResearchEthics@salford.ac.uk)

Yours sincerely,

Anthony Higham



## **APPENDIX 5: Sample Interview Transcript**

### **Q1: The Concept of Strategic Alliances**

**R: I will start with the first question about the understanding the main concept of the strategic alliance.**

**Have you ever been involved with an alliance before?**

**P:** No, this is the first alliance for me, this one, so it's a new experience. It's going after major projects I've worked on before, it's definitely been the best way to deliver a project to this scale, in terms of the collaboration, the togetherness of the team. I think if we didn't work as an alliance on this project we wouldn't be where we are today, in terms of delivering what we deliver because it's been probably the most complex challenge I've been involved with, so the only way to do it is through teamwork and having the right behaviours and that's, kind of, got us where we are today.

**R: Have you been involved before with a partnership joint venture?**

**P:** Yes, I've been involved with joint ventures.

**R: How many times?**

**P:** Twice. On utilities and rail, so different disciplines. They have been good in terms of the delivery, it took a lot longer to build the relationship within the JVs. I think with the alliance, because I was involved with the very early stages, the perception I got from the initial interview meetings when they actually chose who was going to be on the alliance was that everyone was in it together. The messages were coming through in the workshops, so when people actually landed here they kind of knew what they were coming in to, it wasn't a surprise and everyone was trained and well versed on what was needed to make an alliance successful and work.

**R: What is the main motivation for involving or creating this alliance?**

**P:** The main motivation is, what they wanted to do was build a successful delivery model. There was, there's been a number of alliances on the build-up to the formation of this one, which were working and we, kind of, been taking the information and learning the lessons from them, which has helped us deliver, I would say, because these things don't start off perfect. There's a lot of lessons learned and a lot of sharing, so we were fortunate that a couple of alliances had been delivered already on the footprint and we could take some of that learning, but also some of the best practice and integrate it into what we're doing. Can you just go over the question again?

**R: What was the main motivation to create this alliance?**

**P:** Yes, and then I think it was for Network Rail a delivery model for success. The challenges they put into everything is the alliance is about doing things differently, we've never done it before, so relationships, delivery skills, integration, teamwork, and different behaviours within the team. I think the behaviours have helped us deliver it, but that's something that wasn't in place from day one. We've had to really work at that because there's a lot of proud organisations we've brought together and major organisations and one organisation might think their process or system's better than another's, but it's having a grown-up conversation, sitting around the table

and saying, 'Well actually you know what, our model isn't necessarily best for the alliance, we'll go with that one.' It's putting pride aside and just accepting that other people's systems are as good and we choose what's best for the alliance to move it forward.

**R: Do you think that sharing knowledge on information and you mentioned about the skills and that sharing risks [unclear words: 3:56:4] one of the important motivations for creating the alliances?**

**P:** Of course, yes, because in a pure alliance agreement, you know, we've got commitments in there and one is we either win together or we lose together, so everyone's incentivised to make it work and if we don't share the risks and mitigate those risks then we won't get to where we need to be, so that's where a lot of the learning came from.

**R: To what extent do you understand the meaning of the strategic alliance strategy?**

**P:** Very broad overview, yes. I don't understand it in detail, but I understand the principles and the behaviours, what were agreed and came out of that. One of them was win together, lose together, so we worked as an alliance to steer what those look like and then we put them all over the walls in the office so people get a constant reminder and it's embedded into their way of working. It's like a culture and a journey, and the culture won't form overnight, it takes a long time and a lot of hard work from people to get you there and I think now as the alliance is ramping down and coming to the end of it, we're actually in a place where we need to be, a real good place. So, it's a shame really, but what is happening is a lot of the companies from this alliance are being taken onto another alliance, so the behaviours will hopefully transfer, and we'll get a better footprint and a better start than what we did on this one and improve on what we delivered here.

**R: Could you describe the alliancing process, like a decision-making process in the alliance?**

**P:** Yes, so basically, we have three tiers of management. We have the alliance leadership team, what the alliance leadership team do, if we have any real corporate blockers or problems that are preventing us progressing with anything, then we would go in there and present information to the alliance leadership team and they would take it away to the partner organisations and say, 'Well, you know, we've got a corporate governance here that's stopping things moving within the alliance, can we have a discussion or agree to rule this out?' So, they come to an agreement, so that's the first level of decision making, the top level, and then the second level from that is the alliance management team, which I form part of and the other interviewees you've spoken to. We basically manage the alliance going forward, so if there's a decision that can be made in there then we'll do that, like I say, and if there's something that's a corporate thing that needs corporate buy-in then we'll transfer it to the alliance leadership team.

So, we go ALT, alliance management team, then we go to the alliance project team, so they have a level of authorisation to make their own decisions in planning and delivering the work, so that's the hierarchy or structure all the way through and then you've got the workforce.

**R: What does your firm or your company get from this alliance?**

**P:** I think they get a lot if you look at all the publicity around it. They get, they delivered, it's a catalyst for the north in terms of the Great North Rail Project, so we've got one of the most complex track layouts in

Manchester going into Victoria and at some point, it'll be tied into Piccadilly, and I think my company Amey Sersa, they do all that, so they're involved in the Great North Rail Project. They've got a team that's been successful in delivering so it's great for the reputation of the business. We've also done it very safely, so that's another good positive for them and, you know, they've done it with a profit, so it's win-win and it's something that they reflect on throughout the rest of the business as a project that's worked really, really well, so to the team as well who've delivered it, it's been really good as well, a lot of positives.

**R: What does your company give to the alliance?**

**P:** They give, basically the alliance is split up into two principal contractors, Amey being one of them, so they give a presence from a principal contract perspective. They give an assurance, a level of assurance to make sure people are doing what they should be doing onsite, but they also look after the whole of the rail system, so that's all red lines, track, signalling, so they have all the other contractors working under their responsibility, so they're quite fundamental to the way the work's delivered and delivered safely. They're quite fundamental to the collaboration out there as well because it's having the right behaviours, even though we're taking ownership of the rail system, we need to demonstrate the right behaviours with the other disciplines to get us all working together to make sure it's all run smoothly and to programme.

**R: Do you believe when the strategic alliance established with another company, that's competition between the companies?**

**P:** I thought there would be a little bit at the start, yes, because there's a lot of major corporate organisations, but that's part of the journey you go on. You form it and you put people in an environment where they're not used to working in and there will be teething problems, but if you look at it now and you wouldn't recognize anybody work for another company, you'd think we were one team. A good piece of evidence on that was the last blockade in Easter, you wouldn't have known who anybody worked for and that's including the men doing the work on the ground, they're all working together, which helps to deliver it really well.

**R: Have you felt there's something about the competition between the companies within the alliance?**

**P:** Not really, not now, no. We're in it together and that's how everybody sees it, and that message is fed down from the alliance leadership team and then we get the alliance management team who work on here day-to-day, working with the people and integrating the work. Yes, I think it's definitely worked, worked a lot better over the, particularly over the last six to eight months of delivery because the maturity of the culture over time.

**R: What are the key costs during the integration or alliance process?**

**P:** The key costs?

**R: Yes.**

**Ian:** Well, it started, the key costs initially were started with all the consents and getting through that and getting the money released to actually do the work, so and then once we got the money released it's obviously the fundamentals of the planning and then obviously the construction and the design. They're the key costs, the main cost being the construction obviously, the design just is an enabler to get us to construction, but yes, the key costs are the big infrastructure you see out there.

**R: Is there any costs related to training of the [unclear word: 11:14:1] within the alliance or waste of time, maybe the costs for the alliance?**

**P:** Yes, there is costs associated to training. We've done a lot of training in terms of, because we said we'd upskill people and develop people as part of the alliance and we'd promote from within and train those people so if they weren't quite there then we'd spend the money training. Yes, and we, multi-disciplinary training and also, you know, we spent a lot on health and safety training, behavioural [unclear word: 11:43:0] and cultural change, safety step-ups, lots of different training, yes. There is additional costs associated to it because one thing you will do and what does happen in an alliance, everyone's got a different training standards, so we pick what's best for the alliance and sometimes that's an enhanced level of training that another organisation can provide, but we go for the highest level of compliance. If we do that then there's a cost in bringing that organisation up to that standard, so there are costs associated to that as well.

**R: Do you think that lack of the training or the experience effect on alliancing bosses in the first stage maybe, waste some time?**

**P:** I don't think it, I don't think it is always because if you look back on the amount of money we spent on collaboration training, which is proving to be brilliant in the way we've delivered the alliance and you look back all the time and you think, I wonder why we're doing this because people have never experienced it before. Then when you do it a couple of times and you come out of there and you see the behaviours in the office being lived and breathed, that's where your kind of where see the benefits of that, yes.

**Q2: Alliances Behavioural Success Factors**

**R: Let's move on to the second section. The success factors. In your opinion, what are the main factors required to achieve success in your strategic alliances?**

**P:** The alliance agreement, so everyone's in it together because that kind of sets the strategic goal from the top. Good level of senior management visibility in terms of the alliance leadership team, the alliance management team being integrated and onsite working with the teams. Then I would say, as leaders it's the environment you create, so you've got to create an environment where people strive, and you inspire people to go and do the work, to take on the challenges and I think we've done that well through the integrated teams that we have in here. For example, my team downstairs is a-, when we started there was a team of 12 people working for different companies, but everybody knew them as the safety team and they could go and advise on any partner, so, you know, that was one of the key things. What else was there, sorry?

**R: Related to behaviour, in terms of behaviour, what are the behavioural success factors in your opinion? Behaviour?**

**P:** The behaviour success factors?

**P:** Yes, yes, of course, and I think some of it is knowing you can have a challenging conversation with, but getting the right outcome and if you do that right then you build their respect, so it's not a dispute, it's not an argument, it's just a challenging conversation and I think that's what comes out of the collaboration piece. In

some ways, a little bit of healthy conflict helps build relationships and that's a big part of the collaboration training that we took on board, so I think that's been key. Also, trust, commitment, knowledge sharing and mutual dependency as well.

**R: Okay, so relating to these factors because these are behavioural factors, so do you think there is other factors in your opinion?**

P: No, I think they're the key factors, openness, honesty, trust. They're pretty key. The dependencies I think, yes, because we've got specialists who are experts in the field, in the alliance who we rely on, so I would say that's definitely the case, that's a key factor. I would say, no, they're pretty much the factors that are integrated into our alliance agreement for the way we operate, the fundamentals, so.

**R: In terms of trust, trust factor, in your opinion, is it important?**

P: Massively important.

**R: Within the alliance, and why?**

P: Yes, it's important because if we don't trust each other then it's, for me it's not an alliance because you go back into a traditional client contractor relationship, so the client's got to trust us and we've got to trust the other disciplines within the alliance to deliver on time, to deliver safely. The client needs to trust us to make sure we self-assure, and we regulate ourselves, but they are a bigger part of that as well, so if we don't do that, we don't apply the terms of the PAA and we don't deliver the works on time and it wouldn't have been the success it's been.

**R: In your opinion, if the trust lacked, in the alliance, what will happen?**

P: It'll affect behaviours, lack of trust, affect collaboration, one discipline won't trust another, it'll be evident out onsite when we're in the major, critical possessions where people just look after themselves and get their own work done, forget everybody else, it's let's deliver our work and they'll get the time slot they get, you know. I think it has a, it bears a big impact out there on how we deliver the work safely. The same in the design, and the same in the construction. Everything we do, everything we do, and the stuff we live and breathe in here as well.

**R: Do you think it will lead to conflict maybe?**

P: Without a shadow of a doubt, but it won't be healthy conflict. Distrust, it's not conflict, you're probably talking arguments, yes, so I think and then that's going to affect the environment in here because if one team doesn't trust another one then you're not going to build that relationship, are you?

So, I would say it's key.

**R: If the trust's lacked, do you think the opportunistic behaviour will appear within the alliance process?**

P: Yes, yes, well, the relationship won't be there because you're trying to build a relationship with someone who's told you a lie and somebody you never trust, and it'll be the same both sides, so it's a massive impact, yes.

**R: Coming to commitment is it important within the alliance?**

**P:** Yes.

**R: Why?**

**P:** Well, for me one thing I've learnt a lot is you've got to lead by example being in the management team delivering the job and what we took on board was to look at the gaps and say, you know, we do the surveys and ask people questions and let's see where the problem areas are. Then the commitment from us is, has been that right well there's only us going to fix it, we're in it together, so let's look at the survey outputs, let's put a robust action plan in place and let's deliver it and let's tell the people we've delivered it and show them what we've done for them. By doing that, they know they're being listened to and it just boosts morale in the environment, but it creates a better workplace to work in as well, so one of the things we commit to on the alliance is creating a great place to work and I believe we've done that.

**R: If the commitment is lacked, what would happen?**

**P:** What's the point? That's what we'll get from the guys, you know, what's the point of raising issues, what's the point of speaking up, what's the, you know, nobody's listening to us, nobody cares, you know, you flip it on it's head, don't you? It stops being a nice place to work, it stops being a place that you look forward to coming in most days of the week, apart from Mondays, do you know what I mean? So, yes, it has an adverse effect on what I said on the positives on the commitment, yes.

**R: The conflict and the opportunistic behaviour, maybe will be apparent, do you think?**

**P:** Yes, I would say so, but I'd say if people aren't being listened to and this is just from my side of things and the environment's not good, it affects health and wellbeing as well, morale, people walking around with their heads down, nobody's motivated, so it has a huge impact, so there's the health, wellbeing side of it as well that it could affect.

**R: The communication. Is it important within the alliance?**

**P:** Massively. Yes, well communication, part of creating an environment as leaders, is giving people the basic fundamentals, they need to do their job. If they can't use a computer and they can't do the work properly then they become frustrated and for me that plays a big part in stress and stress causes conflict. It also causes people to not want to be here again and be unwell and one of the biggest causes of stress is the workplace and most of Network Rail's sick days were down to stress in the workplace last year, so you've got to get it right and that's what's key to me, the communications, so tell people what you're doing. Keep them up to date with things, get regular communications, newsletters out there, people just want to know what's happening. People want to be part of something, so if there is something going on like a charity event, people want a part of it, then you can invite them into the culture, it's all good information to share, but IT's one of the biggest frustrations, if you don't get it right, yes.

**R: is communication between partners and alliance level important within the alliance?**

**P:** Yes, I do. I think some of the innovations, the way we communicate are key, so it can go from a simple news bulletin to it can go through a television screen with live information on it. Change it up, make it different, that's the kind of stuff we've done here, we've even got the comms out on site with the guys on TV screens in the

compounds at the heart of where they work, so they're not disconnected from us, you know, it's important to create an environment out there as it is in here.

**R: If communication lacked, so do you think the distrust and conflict and opportunism will be apparent?**

**P:** Yes, I do, I do. Well, it's another thing, is working somewhere where nobody tells you anything. Working somewhere where you've got no IT and nobody's listening to you and getting it fixed. Like I say, it's not a place to work, we're not inspiring people to come to work, are we? We're not inspiring them to do extraordinary things, to help us deliver this job, you know, create the environment and create good people, so have a huge impact, yes.

**R: Will it affect the quality of the information?**

**P:** Without a doubt, with the IT because we rely on, we have systems that everybody uses, IT systems, so, for example, we use a thing called ProjectWise. If you haven't got IT you can't access your information to do your job. Onsite it's not as bad for the guys because they don't need a lot of IT. I think the main thing that would affect them is a lack of communication from the leadership and steering them in the right direction and also face-to-face visibility as leaders as well. I think that's played a huge part in keeping the morale up and running in the workforce because we've been out and spoken to them face-to-face, that bit of communication as well, just being there for the guys.

**R: you mentioned knowledge sharing. Is it important within the alliance?**

**P:** Yes.

**R: Why?**

**P:** It's just different experiences and the way, let's say, the way one of the partners does something is not always the best way and it's good to share and learn because it's things we can take away. I think a lot of companies have looked at the way people do things on this alliance and said that'll, which is the best process for the alliance? We'll use that one, but they're also taking it away back into the partner organisations to say, because they've asked, how are you doing it so well? We've done it like this, so taking the learning back into the partner organisations and also those organisations are already in other alliances or going back into alliances, so they're taking their learning with them, it's key, it really is key, fundamental.

**R: The same question. If it's lacked, what would happen?**

**P:** If we don't share information, we're not going to learn. If people just want to ring fence the good stuff and say, 'Well we're not sharing it with you because it's ours'. Then one you'll not get that integration and consistent way of working and everyone will be working to different goals and we should all be working towards the same goals, one team, so, yes.

**R: If these factors lacked, do you think the alliance would terminate after that?**

**P:** I just-, it wouldn't be an alliance, it wouldn't be a nice place to work, it really wouldn't. Sometimes, client contract relationships are quite good because the boundaries are respected in the way working's respected, but if it's an alliance, you've got to make sure those parts are all integrated in there because it's just not going to work,

there'll be no trust, there'll be no teamwork, the morale won't be good, the environment won't be here for the people, there'll be no leadership. Everyone will just be looking after them self.

**R: do you make sure dependency help to build the relationship within the alliance?**

**P:** I think the dependency starts with trust, so people know what you're here to do, but they trust that you can do it. They depend on you to do that and they don't ask you because they know you're here as a special skill set to do it, so I think it's key that we have the inter-dependencies on our people, but there's also the team who form within the alliance. We've got an integration team, we've got an integrated planning controls team, we've got integrated safety team and none of us knew each other when we first started, so we've grown. We've got to know and trust the people we work with and we depend on those people, even though they're from different organisations, we're all one team and I think that's the difference within here as well and it's the same with the civils, the signalling, the track, the overhead lines and I [unclear word: 26:39:4] all that they're here to do and everyone trusts them to deliver it, so the dependencies are key.

**R: Is it important to build the trust and commitment on sharing the information?**

**P:** Yes.

**R: Is it effect on the quality of information within the alliance?**

**P:** Yes, it is, and I think, for example, the way we deliver a block A, for example, we'd have a control room with different, with the leads of each discipline in that room, so that we would make decisions in that room and we would work on that as a team. Then we would take that out to our site teams, because it was coming from the leadership and out onsite and it was helping deliver the job and they knew that the decision had been made from an integrated management team, which helped influence the works getting done onsite, so I think it's key, it really is key.

### **Q3: Alliance Negatives Factors**

**R: In terms of behavioural negative factors, in your opinion, what are the behavioural negative factors while leading the alliance to failure?**

**P:** The behavioural factors that lead it to failure?

**R: Yes.**

**P:** No leadership. Lack of communication to the people, lack of trust, lack of trust, it prevents dependencies on each other because nobody would rely on each other because nobody would trust each other. The openness and honesty and it all kind of links back into the trust, so if there's none of that openness saying you know, 'We've got a problem here and we need you to help us fix it'. If you hide stuff away then it becomes an issue and we committed to no surprises, so you commit to no surprises then you've got to get things on the table, so I think they're the key ones for me. I think the important thing is that it's our power to control and manage. It's not anyone's individual, there shouldn't be a struggle internally between us, we manage it as a team, that's what'll move us forward and I think that's key, whereas you'd have, if you had one discipline trying to take over



everything and take control of everything and not collaborating then the alliance again wouldn't succeed, would it?

**R: Do you think there's any more behavioural factors that lead to the alliance failure?**

**P:** What, for the behaviours?

**R: Yes, the behaviour factors.**

**P:** Yes, there's the lack of collaboration. I think if you're not in a collaborative environment then you're not going to succeed as an alliance, that's a key factor. Relationships are key and building that trust and having time to sit and work with people you wouldn't normally work with before and understanding people and understanding the organisational needs that are coming back into the alliance and making sure that we're getting one consistent approach that suits everybody. They're all kind of key factors for me, yes.

**R: Just a question about conflict, is it a negative factor?**

**P:** No, I don't believe it is as long as it's healthy conflict, so as long as there's a resolution at the end of it and people understand what the final outcome is, and they're joined up on it, but if you're having conflict just for an argument then absolutely not, no. It has to be a healthy challenge.

**R: Do you think it's important?**

**Ian:** It's important, yes. It is important, because conflict is part of, it's collaborative behaviours but it's healthy conflict, it's the right conflict, not conflict for conflict's sake. 'Oh, can I just test your understanding on that, can you tell me where you're coming from with that', and have the conversation. 'Well, I don't actually agree with that, cannot give me a bit more explanation around it'. Then it's either, 'Well, you tell me your side', so you tell your side and, 'Right, yes, I see your point then, so what's the middle ground we can both come to a decision', so it's on the conflict while making decisions about outcome for the team and that's where we need to go.

**R: The negative side of the conflict, like a clash between the partners about the goals?**

**P:** Yes.

**P:** Yes, that's it and different, misaligned beliefs and commitments and values and not collaborative, could be driven by pain or gain or money. One organisation might be getting a bit more out of it than somebody else, but at the end of the day it's getting those people to understand that's the agreement that they signed up to and the company signed up to and they're the things that we need to always reflect back on to make sure that people understand that.

**R: Opportunistic behaviour, is it negative factor, in your opinion?**

**P:** Opportunistic?

**R: Opportunistic.**

**P:** Yes, yes, not if it's our opportunity. If it's our opportunity as the alliance to go and do something more positive then it's great, if it's somebody seeking an opportunity that's only going to benefit them but disbenefit

the other partners, then that's the wrong type of opportunistic behaviour. For me it is a negative, a negative factor, but what I would say as well, the alliance partners that are moving away from here, they should take the opportunity to take their learning away from it, so that's where I've put it on the positive side, so take the opportunity to get involved, but take the opportunity to take your lessons away with you because you're going to have them for the future. That's, so I flip a little bit of positive on it, but there is a very negative aspect to that, where people are just looking after them self and I think that's kind of where and that can be the downfall of an alliance because it is one team working in a silo within an alliance, so making and taking their own opportunities, so.

**R: In terms of power.**

P: Yes.

**R: Is it a negative factor using power within the alliance?**

P: It depends how it's used, so if a particular alliance partner was trying to use their power to influence people's decisions in the wrong way, to benefit them, I'd see that as, yes, that's the - power use in the wrong context where if we use our power as an alliance, as a team, as a collaborative team, I think it's, that's from the [unclear words: 34:39:9] of the works, but the power is the leadership. The leadership create the environment, giving people tools to do the job and the team respecting that power because they're there to enable that environment for them, so the two aspects of it really. Democratic power doesn't really work in an alliance because it's an integrated decision, it's not a democracy, so I think that's where I kind of sit with that one.

**R: Is it positive?**

P: I would say, democratic might be negative in my eyes.

**R: Okay.**

Ian: Depending on how it's done.

**R: Okay, how?**

P: Well, if you're got the AMT making one decision that's fine, and that's a joined-up decision, so we do have a democracy everyone agrees, whereas if it's just in one team and not in the whole team then we have a different outcome.

**R: The second one, coercive power, is it dictatorial or...so is it a negative power or negative factor?**

P: Yes, it can be, so if we've got dictatorial in the alliance, then we're not unanimous in our decision making because people haven't been asked to buy into that, so I think being unanimous, the democratic approach suits because it's one decision from the team, so yes.

**R: Which one of the both of them, is important within the alliance?**

P: I'd go more for the democratic.

**R: Democratic. Okay, you think it's like a flexible sharing the decisions between the partners?**

Ian: Yes, yes.

## **Q5: Strategic Alliance Performance**

**R: The fourth one, the fourth section is about strategic alliance performance measures.**

Ian: Performance, right okay.

**R: What are the main indicators can measure the performance in your strategic alliance?**

**P:** Okay, can I say gaining money because it is important for business life, and getting a high reputation which is essential in order to roll future businesses and alliance projects.

**R: Yes, to what extent do you believe this alliance has enabled you or your company to achieve the profits than you could have without this alliance?**

**P:** Oooh, that's a challenging one! I think first and foremost, because we've planned the job together, we've budgeted the job together, we all share the risk, the cost risk, we all share the opportunities as well. I think what we have done is really heavily focus on risk and opportunity and realise those opportunities where we can, within the different disciplines, where we can make money through working smarter or another discipline might have a cheaper option and sharing that information. I suppose the outcome of that is the alliance giving us the tools that we need to manage risk and opportunity, having a joined-up approach to that. The consequence and the outcome of that is delivering smarter, being more efficient, and generating more profit for the corporate organisations, so I think that's the kind of process to the bigger outcome.

On the flip side of that as well, if those risks and opportunities aren't realised then it's going to be a cost to the organisation's in it, so we spent a lot of time working on that and we introduced an innovations and improvements manager who was here to focus on that. A lot of those costs were realised and you're talking in millions of pounds saved through risk and opportunity, which has been shared out to the corporate, which will be in the gain, but there will be a little bit of pain I suppose as well because things don't always go right in construction.

**R: Your goals, I mean your company, have they been met within the alliance?**

**P:** Yes, yes, I would say they have, yes. They've agreed to the delivery model and they deliver to the model. I would say, I've not seen the final figures, so I don't know whether they've made the profit that they forecasted, but they definitely had a positive outcome out of it and it's not just from profit, it's from reputation and performance and recognition in the industry for what we delivered. Yes, I think it's a little bit bigger than the cost, even though I'm not close to the costs because in my role, safety's paramount because it's my job, so if somebody tells me it's a bit expensive well I'll say, 'Well we need to do it', so I get the buy-in from the alliance management team, so it's a little bit different for me, if you know what I mean?

**R: Your market position?**

**P:** Yes.

**R: Your company has been enhancing through the alliance?**

Ian: Yes, without a shadow of a doubt, yes.

**R: How?**

**P:** Reputation. Delivery of one of the most complex projects, well, it's the most complex project ever delivered in the north of England. When your company's part of that, and you've delivered it, and you've been one of the key players in that, yes, it's a positive reflection on the company and the way it performs but recognising that every time we talk about this job, we talk about the alliance, we don't talk about the company. Everyone here works for the alliance, if there's issues with the corporate body or they're not making enough money then they'll tell the alliance leadership team member and he'll have to answer that, but for us and to be honest with you, I've just been left here to deliver this job and my corporate organisation haven't interfered. They've trusted me to deliver it and that's been and the same with the other disciplines, that's been key to the success, they've just let us keep delivering.

**R: Have you satisfied with your partners within the alliance?**

**P:** Yes, they are yes, and the leaders of the alliance. You've got operations and managing directors of companies, they've had the conversations in there, they have challenging conversations and healthy conflict and they've got to express those behaviours. Then they're going to go and report back to the corporate body to say yes, we're making money, we're working safely, it's productive, it's not, in fact it's enhanced our image, so I think, yes, it's been positive in that respect.

**R: In terms of the strategic alliance performance, there is anything enhanced in terms of the governance your company within the alliance?**

**P:** Yes, well, for example, two of the companies, it's been recognised here that there's another alliance and they've asked two of the companies from this alliance to go and deliver it, so reputationally, financially, it's, this is I think it ended up being £320 million pounds worth of work. The alliance, the other one is £3 billion pounds worth of work, so based on reputation and what can be delivered, I think if you look back on, has the company benefited, well they've won a huge chunk of work out of it, so on reputation, so yes, I would say so, yes.

**R: Okay, so this is the end of my questions. Have you any questions or enquires?**

**P:** Yes, no, one I found the interview good, quite detailed and it's kind of gone back challenging my knowledge from the early days that we started and where we are now, so I appreciate that.