

**A FRAMEWORK FOR TALENT MANAGEMENT TO
SUPPORT THE 2030 KNOWLEDGE-BASED ECONOMIC
VISION FOR QATAR**

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Abstract

Over the last few years, the United Nations' (UN) goals to achieve a sustainable world by 2030 have made a significant impact on many countries and regions; one such region has been Qatar. The national leadership of Qatar, through the strategic leadership of the ruler Sheikh Tamim bin Hamad bin Khalifa Al-Thani, embarked on an ambitious programme to transform the country's vibrant oil and gas-centric economy to a knowledge-based economy. The leadership created the Qatar National Vision (2030), which had a focus on ensuring that local Qataris get the maximum benefit from the economy and fully participate in the process of transforming it into a knowledge-based economy (KBE). The QNV 2030 policy has many strands; however, the overarching thread has been to transform the economy through human development and sustainable productivity. In trying to operationalise the transformation of the economy, the government embarked on short-term programmes, such as the development of local infrastructure through the promotion and hosting of international events, including the Asian games and the upcoming 2022 FIFA World Cup. As a policy, therefore, the QNV 2030 has centred on ensuring that the economy creates a systematic way of attracting, identifying, developing, engaging, retaining and deploying local Qataris to work as knowledge workers within the local economy; this process could be referred to as 'talent management' – a sub-set of the human development vision of the QNV 2030, and of the UN at large.

This research found that, from the onset, the QNV 2030 policy had no tangible, detailed plan for organisations operating in Qatar to use in order transform the economy into a knowledge-based system through talent management. The research used interpretivist and positivist research philosophies to design a mixed methodology that relied on questionnaire surveys and interviews to gather both qualitative and quantitative data from the industry and from literature in general. The research used data from 284 questionnaire survey responses, 24 interviews and interpretive structural modelling to establish the overall picture that, while industries are aware of the importance of the QNV 2030, there has been no synchronisation of organisational and national goals. In addition, the research found that local cultural tendencies tend to create toxic working environments where leadership is restricted, talent

management stifled, and the wrong jobs are given to the wrong candidates. This is creating demotivation amongst those individuals who are well qualified but not socially or culturally connected.

The overarching conclusion of the research has been that, while the national leadership foresees a KBE in Qatar by 2030, the strategic leaders of organisations in the economy have failed to link their organisational vision to the national vision for the country. The operationalisation of the QNV 2030 has, to a large extent, focused on maintaining short-term economic gains as opposed to the longer-term visionary gains that could accrue if managers invested heavily in human development through talent management. As such, this thesis proposes a framework through which Qatar's local economy might be transformed into a knowledge-based system through the deployment of a matrix of knowledge workers in learning organisations. It also sets out the critical strategic steps to be undertaken by organisations in both the private and public sectors.

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Declaration

This thesis is submitted under the University of Salford rules and regulations for the award of a PhD degree by research.

This researcher declares that she is responsible for the work carried out in this thesis. Furthermore, she wishes to state that no portion of the work referred to in this thesis has been submitted elsewhere for another degree qualification at this, or any other, university.

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Fatima AL Mohannadi

1st May 2017

List of Abbreviations

GCC	Gulf Cooperation Council
KBE	Knowledge Base Economy
KBO	Knowledge Base Organisation
KM	Knowledge Management
KW	Knowledge Worker
LO	Learning Organisation
OL	Organisational Learning
QNV	Qatar National Vision

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1 CHAPTER ONE: GENERAL INTRODUCTION

1.1 Introduction

This chapter introduces the context of this research by explaining the current situation in Qatar and how the researcher will address this problem. This chapter is structured as follows:

- Research background
- Research problem
- Rationale for the research
- Research justification
- Aim and objectives
- Research questions
- Hypothesis
- Scope of the research conceptual framework
- Structure of the thesis

Over the last decade, the Gulf Cooperation Council (GCC) countries have embarked on ambitious programmes centred on rapid economic development to match, and if possible surpass, the Western pace of development (Fromherz, 2012; Ulrichsen, 2012). According to Naufal and Gene (2012), the overarching driver for the demand for such breakneck speed in terms of development has been those countries' inevitable desire to diversify their main economic activities. Throughout the Twentieth Century, the GCC states have focused on the pearl and fishing industries, which have employed over 70% of the population. The discovery of oil and gas in the latter stages of the period saw these economies develop rapidly (Naufal & Gene, 2012) resulting in: (i) massive natural resources providing an influx of income that was translated into substantial development projects; and (ii) political stability within the GCC region, providing a critical pull factor for people to move there in anticipation of higher incomes. Kamrava (2012a) argued that all of the developmental activities in the GCC countries have been made possible by the political economy of the Persian Gulf countries, with the exception of Iran. These governments have been deliberately promoting rapid economic growth that, in turn, has fostered considerable

infrastructure development. He further argued that, “*the Herculean developmental efforts have been made possible through comparatively high levels of globalisation and integration into global economy*” (Kamrava, 2012a, p.2); and that “*there is an effort to lay the foundations for sustainable development once the oil era is over, and hydrocarbon exports can no longer finance development at breakneck speed*” (Kamrava, 2012a, p.3).

Fundamental to the drive for development has been the realisation by the leadership of the GCC countries that rolling out ambitious development plans would require them to contend with the strong forces of, “*globalisation, social change, population pressures, business reform and technological advancement*” (Osman, 2014, p.1). This implies that, even though the central motivations of the governments have been to create active and interventionist development characteristics amongst the states in the GCC, they have needed to catch up with the Developed World and, more acutely, reorient themselves away from their dependence on oil and gas so that they can sustain themselves once their resource wealth runs out (Osman, 2014). To achieve these ambitious plans, leaders in the Persian Gulf have isolated three economic characteristics that need to be developed: rapid economic growth and infrastructure development; integration into the global economy; and, ushering in knowledge-based economies (Hvidt, 2014; Kamrava, 2012b; Ulrichsen, 2012). These three factors, according to Osman (2014), have motivated GCC governments to significantly restructure their policies.

According to Lawson (2012) the influence of the Persian Gulf states in the international economy appear to be waning, due to their over-reliance on hydrocarbon production and their evident lack of success in diversifying their domestic industries. In order to change this perception, Arab states have had to undertake an extensive range of activities in the global financial system, and attract increasing amounts of foreign direct investment (Lawson, 2012). As a result, the GCC have become producers of heavy industrial goods, such as aluminium, plastics and cement, and are carving out a niche in emerging markets as large-scale suppliers of such products (Lawson, 2012).

In the country of Qatar, the monarchy – like other political systems in the GCC – has largely been autonomous in their economic decision-making; hence, they have developed their policy of investing in the development of a knowledge-based economy to make Qatar more economically competitive in future (Osman, 2014). As a nation, Qatar has observed that the various economic efforts by states around the world have targeted knowledge as an economic good to bolster their economic prosperity and compete in the race for global economic advantage (Osman, 2014). Ulrichsen (2012, p.98) argued that, “*creating knowledge economies requires greater and sustained level of engagement on multiple fronts, rather than merely a focus on qualitative improvements to education or institutional or regulatory reforms, critical though these are*”. This implies that a government that wishes to create a knowledge-based economy would need a “*complex enabling environment to emerge; one that interlinks reforms to institutional and capacity building infrastructure, market development, and appropriate legal frameworks, a financial system capable of mobilising and channelling investment to firms whose innovatory outputs may encompass a lengthy start-up phase, all underpinned by the intangible values interest in nurturing a meritocratic business culture of productive entrepreneurship*”. In the case of Qatar, its vision of developing a knowledge-based economy by 2030 is intricately interwoven with the development of local talent (Naufal & Gene, 2012).

According to the General Secretariat for Development Planning [GSDP] (2012), the current infrastructure development programme for Qatar is considered a means to an end whereby the main goal of the Vision 2030 scheme is to establish a knowledge-based economy that is highly competitive at an international level. This would demand, among other things, a paradigm shift away from a hydrocarbon-based economy to one that is knowledge-based (GSDP, 2012); and to develop Qatari nationals so that they can take up the mantle to develop such a system. Currently, there are many industries involved in the planning and implementation of Qatar’s infrastructure development; however, the Qatari government’s strategy has been to use the construction industry (Figure 1-1) as the main vehicle to ensure that investment in the infrastructure can be realised and that the country can be built on a strong, modern foundation in terms of infrastructure and service provision to its people (Ministry of Business and Trade, 2012).



Figure 1-1: Economic Growth In Qatar By Major Sector (Source: Ministry of Development Planning and Statistics, 2016).

Essentially, the government has a wider economic agenda through its industrial development, such as the development of the hydrocarbon industry and tourism, of which the latter includes hosting international sporting tournaments, such as the 2022 FIFA World Cup (MEED, 2012). The government’s economic development initiatives, through both industrial activities and tourism, would be jeopardised by any stalling in its infrastructure development; as such, human resource planning, succession planning, and talent management amongst its labour force – *inter alia* – have become crucial factors in the strategic deliverance of the infrastructure that Qatar needs (Lewis & Heckman, 2006). This research, therefore, aims to critically examine strategies within Qatar for talent management and to develop a framework for the management of Qatari nationals as the source of talent for the soft infrastructure necessary in the future knowledge-based economy envisioned for 2030.

1.2 Research Background

“Qatar National Vision 2030 (QNV 2030) foresees that in the transition towards a knowledge-based economy, future economic success will depend increasingly on the ability of the Qatari people

to deal with an international order that is knowledge-based and extremely competitive. To achieve this objective, QNV 2030 states that Qatar will strive to increase the effective labour force participation of its citizens” (GSDP, 2012, p.54)

Over the past few decades, countries in the GCC have grappled with the proportion of their resources relative to their respective societies. They have characterised their political economies as being more entrepreneurial, supporting of development and responsive to the demands of global markets (Osman, 2014). However, each country has developed its own strategy to structure its economy. Thus, as Osman (2014) pointed out, each country has been crafting national visions that plan to develop knowledge-based economies for which, *“individuals are active contributors of economic growth that is production-based, and simultaneously reinforcing the allocative nature of the state by giving out payments and salary increments to placate citizens during the regional unrest of the Arab uprisings”* (GSDP, 2012, p.54). This quote from the General Secretariat for Development Planning shows that the government of Qatar sees the process of infrastructure development as a means to enable the overall vision of achieving a knowledge-based economy by 2030. However, such a realisation triggers the argument that archiving future economic success in the form of a Qatari knowledge-based economy would largely depend on the strategic utilisation of the human capital available within the country. For instance, by November 2012, Qatar had the highest ratio of migrants to citizens in the world with the total labour force comprising 94% migrants and 6% nationals (Human Rights Watch, 2012), and shown in Table 1-1 and Figure 1-2. To this effect, Osman (2014) argued that infrastructure must be accompanied by the reform of soft infrastructure – or institutional culture, governance and behaviour – in order to effectively address barriers to innovation processes. It implies that addressing the physical infrastructure is a necessary step in developing a knowledge-based economy; however, more needs to be done in order to address the underlying barriers to the attainment of economic growth, that is driven by knowledge and other intangible factors (Lawson, 2012).

Country	Total Population	Citizen population	Citizen as percentage of total	Expat population	Expat as percentage of total
Bahrain	791,000	522,049	66	268,951	34
Kuwait	3,566,437	1,859,437	52	1,707,000	48
Oman	2,845,000	2,267,707	80	577,293	20
Qatar	1,696,563	425,563	25	1,271,000	75
Saudi Arabia	27,136,977	20,992,741	77	6,144,236	23
UAE	4,106,427	828,427	20	3,278,000	80

Table 1-1: Citizen And Expatriate Statistics Based On Census Or Mean Estimated Data (Source: Human Rights Watch, 2012)

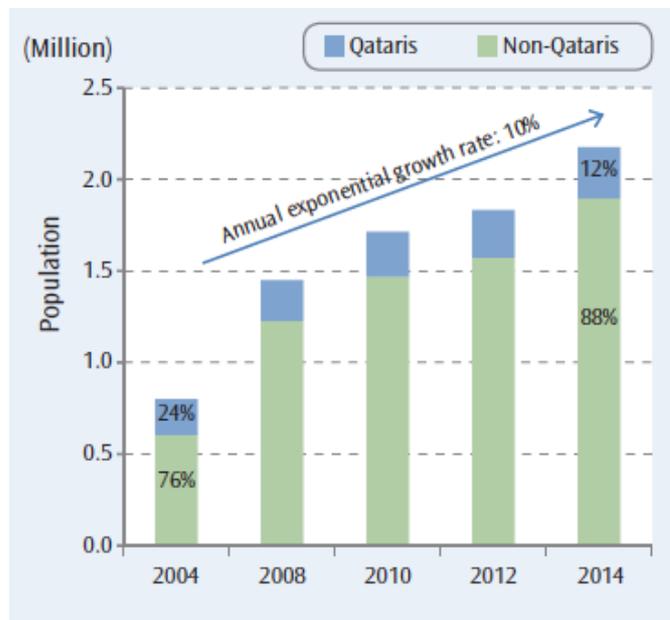


Figure 1-2: Qatari Population By Nationality (Source: Qatar Economic Insight, 2016).

With such a high percentage of low-skilled migrants in the national workforce, it is inevitable that labour-intensive industries, such as construction, face myriad challenges when dealing with workers. For example, the Human Rights Watch (2012) report on the recruitment of migrant construction workers for the next 10 years in Qatar argues that there are gaps in the level of treatment that migrant workers experience at the hands of their employers. The Social & Economic Survey Research Institute [SESRI] (2011) of Qatar surveyed the workforce about their experiences in Qatar; it discovered that about 56% of the migrant construction workforce was

engaged through a recruitment agency and that 91% had their passports held by their employer. Such an image of the country would be negative to the government's 2030 vision of a knowledge-based economy.

According to Fromherz (2012), Qatar has invested heavily in developing a positive image – one which starts with an exalted or high position on the pyramid of economic development for Qataris – that has fostered the country's success. As a nation, Qatar has been shaped not, *“only by the image of rapid change and progress projected to the outside world, but the much slower moving internal structures of Qatari society”* (Fromherz, 2012, p.2). For instance, *“[the] media paints the country as one that has no internal problems; and that Qataris accept to be ruled by the Emir; there is no politicking, there is a clear position on security, development and prosperity”* (Fromherz, 2012, p.2). Through Emir Al-Thani, the government of Qatar has taken advantage of the positive image of Qatar to create the Qatar Investment Authority (QIA) (Seznec, 2012) – an organisation that manages the funds of the State of Qatar that is not used for the budget or running expenses. It has been responsible for the international investment of Qatari funds and has been engaged in the formation of other companies within Qatar to generate more funds (Seznec, 2012).

Ulrichsen (2012) believes that, while the development of a positive image is necessary for any GCC country, there are underlying motives for a move towards a knowledge-based economy. This is due to the official acknowledgement that Qatar needs a highly skilled, well-educated and qualified workforce able to compete in internationally competitive labour markets and alleviate pressing problems regarding under-employment. The transition to a KBE would therefore involve shifting from the reliance on physical capital and low-cost labour for competitive advantage to an increase in technology and knowledge-based industries as major generators of value added, exports and new jobs (Ulrichsen, 2012). It was, therefore, acknowledged that the strategy to translate oil wealth into the human capital, which is integral in the shift to a knowledge economy has been unclear in many ways (Ulrichsen, 2012).

However, the largest challenge for labour within Qatar has been the realisation that local talent has been disengaged with the Qatar 2030 vision because they feel that, for years, the government has abandoned local Qatari youth – the very pool of talent that

forms the bedrock of a knowledge-based economy – by bringing in foreign workers (GSDP, 2012). It is therefore essential to examine the current strategies that companies are using to develop the local talent pool to support the government’s vision for Qatar in 2030.

1.3 Research Problem

According to Hvidt (2014), the concept of a knowledge-based economy can be clearly understood from a step-wise explanation of how the world economy and capitalism have reached this stage. He argues that, from its onset, capitalism was based on the manual labour that produced goods and services; however, things have changed now because there has been a transformation from mass-production systems that were centred on labour as the sole means for adding value to a new era where production is centred on innovation as the principle means of adding value. Production and economic growth are therefore now driven by knowledge and intellectual capabilities. Thus, by definition, a KBE is an economy where success is increasingly based on the, *“effective utilisation of intangible assets such as knowledge, skills and innovative potential as the key resource for competitive advantage”* (Hvidt, 2014, p.28).

Qatar and other GCC countries have observed that a KBE encompasses a range of tangible and intangible factors that feed into the cumulative policy reforms that create the necessary environment and institutional infrastructure to foster such a transition; this has been the case in South Korea, Singapore and other countries (Ulrichsen, 2012). The KBE issue arose from the realisation by the six GCC countries that such an economic system can accelerate flows of information, knowledge, capital, and human resources across state boundaries (Ulrichsen, 2012). They realised that this would be a useful economic growth strategy that could be developed using a large share of the oil and gas capital accumulated during the 2002–2008 oil price boom to invest in high-profile and headline-making initiatives in higher education and scientific research (Ulrichsen, 2012).

The major prerequisite for a successful KBE is to embed in the process of change the emergence or expansion of a highly educated and qualified workforce (Ulrichsen, 2012). However, the government of Qatar has no clear strategy to utilise the expertise

of local Qataris to implement such a process. Furthermore, the Vision 2030 policy is silent on the strategies that organisations can use if they are to promote the participation of Qataris in the labour force, which is necessary in transforming the current economy into a KBE. In the short term, the government has responded to the challenge of engaging local Qataris by importing high amounts of labour (low-skilled), as shown in Figure 1-3; this has especially involved operatives that have become essential to the development of the infrastructure needed for the transition (Naufal & Gene, 2012; SESRI, 2012).

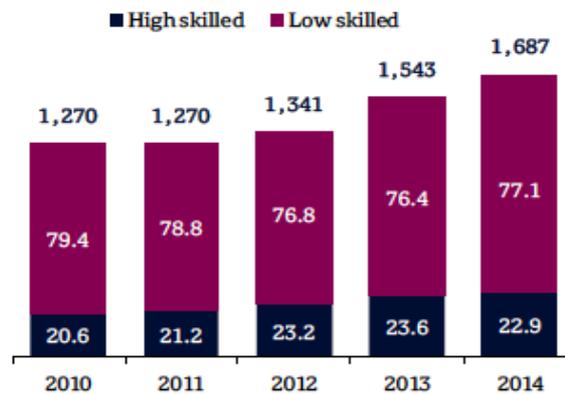


Figure 1-3: Labour Force By Skills (Shown By Thousand And % Share) (Source: Qatar Economic insight, 2016).

This over reliance on low-skilled expatriate and foreign workers in Qatar has inadvertently triggered negative perceptions about the political, social and economic leadership of the economy among Qatari youth (GSDP, 2012). The national youth have felt that they have been left out of their country’s economic activities, which has led the government to implement policies to involve the youth as much as is reasonably practicable (GSDP, 2012). While the government realised that, *"motivating the Qatari youth to get involved in the rapid economic growth is cardinal to changing to knowledge-based economy, it acknowledges that youths need guidance for them to get involved"* (GSDP, 2012). The Qatari government therefore needs to create a strategy that can manage the country’s talent through a robust human capital development regime recognisable at an international level (McLean, Kuo, Budhwani, Yamnill & Virakul, 2012). Qatar has been slowly implementing the strategy of using knowledge and skills through education, but more could be done to further knowledge

by developing talent (GSDP, 2012). For example, GSDP (2012) argued that boys have been dropping out of school at an alarming rate, and that their enrolment in science, mathematics and technology has been declining, as illustrated in Table 1-2. The high drop-out rates at the tertiary level (GSDP, 2012) mean that the foundations of young talent in Qatar are shaky due to poor uptake of education-related activities at this critical stages of their development. The challenge is therefore to develop a talent management strategy that could sustain human capital development and institute competitiveness for identified Qataris from local pools of talent (Campbell, Coff & Kryscynski, 2012).

Country	Mean score		Percentile ^a		Mean score		Percentile ^a	
	2006	2009	2006	2009	2006	2009	2006	2009
	Science				Mathematics			
Finland	563	554	2	3	548	541	4	9
Japan	531	539	11	8	523	529	18	14
Australia	527	527	14	15	520	514	21	23
United Kingdom	515	514	25	25	495	492	42	43
United States	489	502	51	35	474	487	61	48
Italy	475	489	63	54	462	483	67	54
Dubai (United Arab Emirates)	--	466	--	63	--	453	--	63
Thailand	421	425	81	75	417	419	77	77
Jordan	422	415	79	78	384	387	89	86
Qatar	349	379	98	94	318	368	98	95

Table 1-2: Qatari Secondary Students’ Test Results In Science And Mathematics Below International Benchmarks (Source: GSDP, 2012)

This research therefore aims to assess how talent management could be used to develop the human capital that is essential for continued economic development and to transform the economy into a KBE. The research uses the current organisational performance of various industries to assess how talent management is being operationalised in view of QNV 2030 amidst the influx of expatriate workers that have contributed to the dynamism in the knowledge-based workforce within Qatar.

1.3.1 Local Human Capital Development

With a migrant to citizen ratio of over 90% within the Qatari workforce, talent management can be seen as a crucial factor in sustaining the labour requirements for economic growth without jeopardising the ‘*Qatar*’ brand that has been successfully marketed to international investors. It is therefore justified that, for the construction industry to fully deliver the infrastructure for Vision 2030, robust talent management is necessary to ensure that Qatar has adequate labour both for now and the future.

Funds Europe Ltd (2011) observed that there is a strong outlook both for Qatar now and in the foreseeable future. For instance, “*in 2010 Qatar was identified as the world’s fastest growing economy, expanding at a rate of 19.4%, and also had one of the highest GDP per capita at just under \$80,000*”. Funds Europe (2011) further explained that, “*Much of this growth is due to the strength of its hydrocarbon industry*”. Qatar has the world’s largest per capita production, and proven reserves of both oil and natural gas. The high levels of production and export of liquefied natural gas, oil, petrochemicals and other related industries make a substantial contribution to the Qatari economy and are also a significant target for international investment. With such a high level of performance, “*Qatar has been seeing vast amounts of investment in the energy sector, with an estimated \$120 billion investment in the energy sector over the next ten years*” (Funds Europe Limited, 2011).

Apart from the hydrocarbon industry, there has been a realisation that industries such as sport and tourism, finance and asset management have the potential to maintain a stable contribution to the economic growth of Qatar. For example, Foley, McGillivray and McPherson (2012, p.101) reported that, “*the prominence of sport event tourism in Asia, and the Middle East and Gulf Region as an alternative form of economic driver has been marked over the last decade. In particular, over recent years the Middle East and Gulf Region, an area known for its oil-rich states and celebrity lifestyles, has been the site of extensive bidding and delivery of sports mega-events.*” However, before more industries can realise their potential, infrastructure development is necessary. This means that any deficiencies in the construction industry would have to be addressed, otherwise it would be difficult to surpass the performances stipulated on page 2 of Qatar Vision 2030 (GSDP, 2008) where the country is expected to develop its infrastructure to a post-modern standard (Vision 2030). Despite the availability of

financial resources from the government and various investors, there are deficiencies in meeting cost targets, schedule targets, and quality and performance standards, as well as delays, disputes, procurement problems, and communication and contractual problems. However, the greatest concern amongst the national and international communities is the sustenance of labour that does not flout international, local and cultural labour laws and guidelines (Human Rights Watch, 2012a).

1.3.2 The Transformation of Economic Activity in Qatar

When considering the snapshot of the public revenue reported by the Qatari Investment Fund (shown in Table 1-3), it is evident that the oil and gas earnings dwarf other sources of revenue for the government every year. Table 1-3 also shows a slight decline in the earnings from the industries by about 2% on average every year for the last five years. However, the real difference in public revenue becomes clearer when the current system is compared with the then-main economic activities of the early 1900s – the pearl and fishing industries – when living standards in the Gulf were limited (Fromherz, 2012; Naufal & Gene, 2012). However, the discovery of large reserves of oil and natural gas has fuelled significant change in the GCC countries, including Qatar (Naufal & Gene, 2012).

Public Revenues	2011/2012	% of Total	2012/2013	% of Total	2013/2014	% of Total
Oil,Gas and investment	123,755,319,266	76%	143,580,919,487	70%	150,402,253,774	69.0
Other miscellaneous revenue	38,718,881,352	24%	62,692,080,869	30%	67,648,757,454	31.02
Total	162,474,200,618	100%	206,273,000,356	100%	218,051,011,228	100.00

Public Expenses	2011/2012	% of Total	2012/2013	% of Total	2013/2014	% of Total
Salaries and wages	25,207,368,157	18.0	36,685,457,531	20.5	44,261,604,005	21.0
Ongoping exenses	49,601,651,990	35.4	68,758,622,459	38.5	77,505,270,278	36.8
Capital expendicture	7,129,381,088	5.1	11,035,488,758	6.2	13,950,984,676	6.6
Public projects	57,999,339,145	41.4	62,110,588,594	34.8	74,884,417,499	35.6
Total	139,937,740,380	100	178,590,157,342	100	210,602,276,458	100
surplus/ deficit	22,536,460,238		27,682,843,014		7,448,734,770	
surplus/deficit percentage/	13%		16%		4%	

Table 1-3: Economic Indicators For Qatar From 2011 To 2014 In U.S Dollars

(Source: Qatar Investment Fund, 2014)

To this effect, Fromherz (2012, p.3) stated that Qatar, “*relies primarily on long-term natural gas contracts that are not subject to the same short-term price fluctuations as crude oil; yet, despite the riches and stunning pace of development, there are still*

similarities between Qataris of today and those of 1940”. For example, Qatar National Bank (2013) reported that, between 2008 and 2012, Qatar was the world’s fastest growing economy, with the highest real GDP compared with other GCC countries; this is, shown in Figure 1-4.

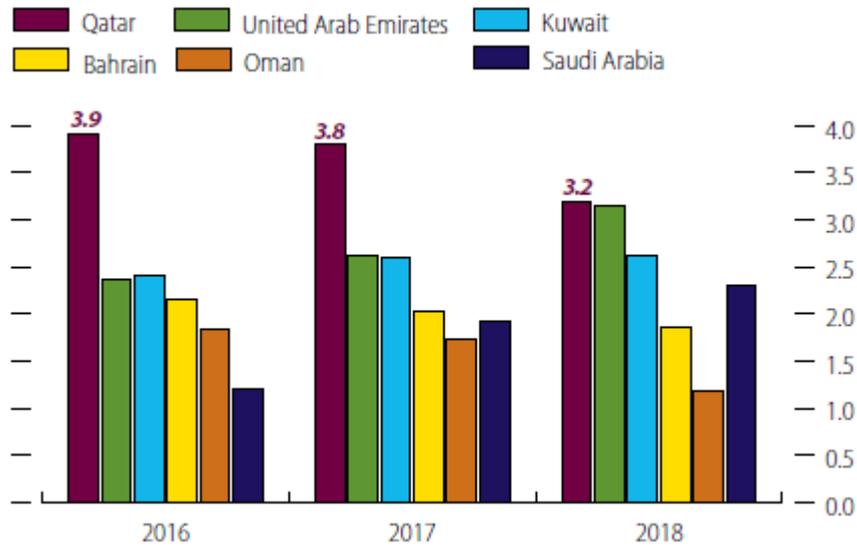


Figure 1-4: Real Gross Domestic Product Growth (Source: Ministry of Development Planning and Statistics, 2016, p.3)

Fromherz (2012, p.3) further argued that, “*wealth has transformed the Qatari society in some ways, but not nearly to the extent that it has been transformative in the Qatari economy or built environment. In fact, economic modernisation has done little to damage the long-established lineage loyalties*”. However, “*this rapid growth was mainly driven by the hydrocarbon and services sectors. Real GDP growth in 2012 slowed to 6.2% as the moratorium on liquid natural gas (LNG) production reduced hydrocarbon sector growth*” (Qatar National Bank, 2013). Based on this data, Kamrava (2012b, p.43) reasoned that, even though Qatar is a rentier state – one largely dependent on extractive resource rents, taxes and royalties paid by multinational corporations, and on profits derived from its equity stakes in international investment – it has a political economy system that offers demonstrable benefits to the people. For example, the Ministry of Development Planning and Statistics (2015) reported that the QNV 2030 human development pillars are being implemented so that all of Qatar’s people can sustain a prosperous society and meet

the needs of the current generation without compromising the needs of future generations. The report focuses on three critical dimensions of human development, namely “*living a long and healthy life, having access to knowledge, and having a decent standard of living*” (Ministry of Development Planning and Statistics, 2015). These have been identified as critical to the economic growth of Qatar. It can therefore be argued that a critical examination of the strategies to operationalise a KBE in Qatar would be valuable to the industry, policy makers and the population at large, hence the value of this research.

1.4 Rationale for Research

The rationale for this research emanates from the government policy of transforming the Qatari economy into a knowledge-based system by the year 2030 (General Secretariat for Development Planning [GSDP], 2008). This implies that the Qatari economy has to change from a hydrocarbon-driven to a knowledge-centred economy. After preliminary reviews of the literature, reports, whitepapers and the like, it is been argued that the country’s chances of developing a KBE strongly depend on its human development and innovation (Carrillo, 2008). Ergazakis and Metaxiotis (2011) opined that, for any policy on a KBE to perform well, it has to take a “*holistic and unified approach*” in order to facilitate the, “*practical formulation of citizen-centric knowledge-based development strategies; knowledge-based urban planning; knowledge-based development assessment and metrics and the practical aspects of implementation of knowledge-based development approaches*”.

Currently, the Qatari vision and its policy stresses that there is a serious challenge to the transition from a hydrocarbon industry to a knowledge-based economy because local Qataris are not taking up the mantle and developing the country’s human capital. Secondly, there has been an ever-increasing emphasis on investing in infrastructure as a way of transforming the economy at the expense of human development. Thirdly, there has been an overreliance on migrant workers in strategic positions (GSDP, 2008). Al-Saadi (2010) argued that, despite the availability of financial resources from the government and various investors, Qatari industries have inherent deficiencies in meeting targets, schedule targets, quality and performance, and face delays, disputes, procurement problems, and communication and contractual

problems. Most of these obstacles are attributable to the country's poor knowledge-driven economic performance, as alluded to earlier (GSDP, 2008). This is because local Qataris are reluctant to lead and drive the economy from a carbon-based one into a knowledge-based one.

The rationale for this research originates from the standpoint that it is impossible to transform an economy without developing human capital (Olimpia, 2012). Hence the research aims at establishing a framework to guide Qatari government firms to achieve the Qatar National Vision's (QNV 2030) goal of a KBE by enhancing the country's Qatari talent. Therefore, this research targets decision and policy makers, and Qatari youths involved in the development of knowledge-based infrastructure in Qatari industries who, amongst other professionals, have been identified as the local Qataris who are 'unwilling' (Kamrava, 2012a) to take up talent-driven positions and drive the economy forward. The choice of Ministry of Education, Ministry of Development Planning and Statistics, Ministry of Administrative Development Labour and Social Affairs, ICT Qatar, and Construction firms in the research frame aims to limit the scope to the ministries that are directly responsible for the development of talented Qataris. Without such limitations, the scope of the research would be too vast to be adequately covered in the four-year timeframe of this study.

1.5 Research Justification

Over the past few years, policy makers in the Middle East and North Africa (MENA) have focused on, and in turn drawn international attention to, growing their economies (Naufal & Gene, 2012). The region has been at the centre of many conflicts concerning efforts to achieve sustainable development. In addition, many industrialised countries have a particular interest in this region due to its high hydrocarbon revenues, which are critical in the international oil markets. MENA countries have injected their oil and gas revenues into the infrastructures, mainly through construction development, which has drawn a large number of foreign nationals to work in the region, as illustrated in Figure 1-5, which shows how people have moved to the GCC.

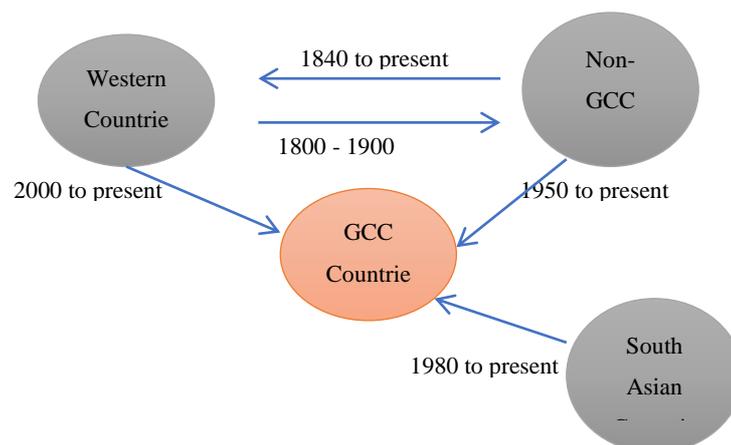


Figure 1-5: Movement Of People To The GCC (Source: Naufal & Gene, 2012)

The size of the development projects and their tight timeframes has required a large labour force. The relatively small number of Qatari nationals in the country, in combination with their widespread lack of education, skills and experience to handle such massive projects, has necessitated a great deal of foreign labour (Naufal & Gene, 2012). Despite its ability to attract expatriate labour, Qatar wishes to develop its local people if it is to transition its current economy into a KBE (Fromherz, 2012).

Gender Years	المجموع Total	إناث Females	ذكور Males	النوع السنوات
2010*	1,699,435	414,696	1,284,739	*٢٠١٠
2010	1,715,098	418,988	1,296,110	٢٠١٠
2011	1,732,717	444,127	1,288,590	٢٠١١
2012	1,832,903	477,704	1,355,199	٢٠١٢
2013	2,003,700	526,068	1,477,632	٢٠١٣
2014	2,216,180	564,143	1,652,037	٢٠١٤
2015*	2,404,776	587,795	1,816,981	*٢٠١٥
2015	2,437,790	597,147	1,840,643	٢٠١٥

Table 1-4: The Steady Pace Of Population Growth In Qatar (Source: Ministry of Development Planning and Statistics, 2015a)

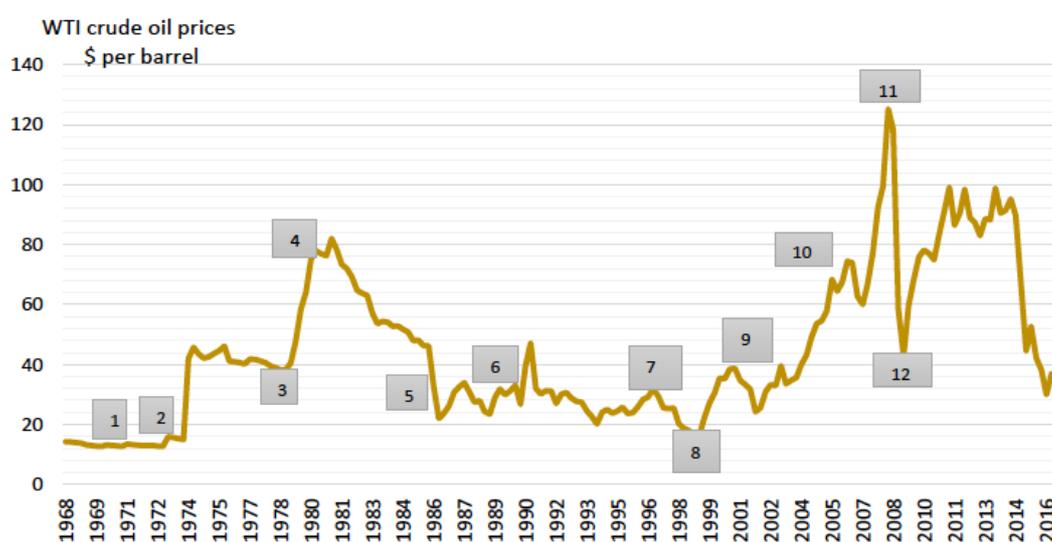
Gender Age groups	المجموع Total	إناث Females	ذكور Males	النوع فئات العمر
0	25,871	12,683	13,188	٠
1 - 4	99,169	48,461	50,708	٤ - ١
5 - 9	115,844	56,611	59,233	٩ - ٥
10 - 14	96,511	46,886	49,625	١٤ - ١٠
15 - 19	99,851	35,467	64,384	١٩ - ١٥
20 - 24	260,479	48,190	212,289	٢٤ - ٢٠
25 - 29	424,985	80,030	344,955	٢٩ - ٢٥
30 - 34	402,149	81,137	321,012	٣٤ - ٣٠
35 - 39	307,289	64,696	242,593	٣٩ - ٣٥
40 - 44	228,510	44,988	183,522	٤٤ - ٤٠
45 - 49	159,420	30,330	129,090	٤٩ - ٤٥
50 - 54	99,532	19,612	79,920	٥٤ - ٥٠
55 - 59	63,974	12,513	51,461	٥٩ - ٥٥

Table 1-5: Demonstration Of The Youthful Nature Of The Qatari Population (Source: Ministry of Development Planning and Statistics, 2015a)

However, Qatar faces a challenge regarding the implementation of its KBE vision for 2030 as it has witnessed a relatively steady growth in its population (Ministry of Development Planning and Statistics, 2015a) as shown in Table 1-4. Furthermore, the majority of its population is youthful – as shown in Table 1-5. Qatar also faces the challenge of promoting a knowledge-based economy, whose critical factor is innovation and education (Hvidt, 2014). This is problematic as the number of local Qataris entering tertiary education – such as universities – is relatively small compared to those entering and or leaving high school (Ministry of Development Planning and Statistics, 2015a).

At the regional level, the Gulf Cooperation Council (GCC) countries consist of six nations located in the Arabian Peninsula: The Kingdom of Bahrain, The State of Kuwait, The Sultanate of Oman, The State of Qatar, The Kingdom of Saudi Arabia (KSA) and the State of the United Arab Emirates (UAE). The GCC is both a political and an economic organisation with the objective of devising similar regulations in various sectors of its constituent members' economies, and these include monetary, trade, customs, tourism and military policies. The GCC countries are competing to

transition their resource-based (oil and gas) economies into knowledge-based economies (KBE), due to the turbulence that fluctuating oil and gas production costs and pricing can exert on the wider economy (see Figure 1-6). For example, 2014 saw a sharp decline in oil prices, which hampered the economies of many oil-producing countries. Indeed, the political dynamics of the oil and gas sector compound the uncertainties around this economic focus. For example, countries like the Kingdom of Saudi Arabia do not believe in reducing their output in order to arrest declining prices (El-Gamal and El-Dahan, 2014).



These events are: 1: US spare capacity exhausted, 2: Arab Oil Embargo, 3: Iranian Revolution, 4: Iran-Iraq War, 5: Saudis abandon swing producer role, 6: Iraq invades Kuwait, 7: Asian financial crisis, 8: OPEC cuts production targets 1.7 (million barrel a day (b/d)), 9: 9-11 attacks, 10: Low spare capacity, 11: Global financial crisis, 12: OPEC cuts production targets 4.2 (million b/d).

Figure 1-6: Oil Price And Geopolitical And Economic Events (Source: The World Bank, 2016).

While the Kingdom of Saudi Arabia can dig into its reserves to cushion the side effects of declining oil prices (The Associated Press, 2014), other economies, such as Russia, Iran and Venezuela, have no cash reserves to use, hence their economies have been hurt by the lower oil prices (Cawthorne, 2014). It can therefore be seen that international oil prices are subject to volatility and that the impact such volatility can have on an economy should not be underestimated (Treanor, 2014). Economies with the capacity to absorb such price shocks can cope well (BBC, 2014; Business Insider (UK), 2014) while others struggle to deal with declining oil prices.

Though oil and gas have been the main driver of GDP in the GCC, Qatar took a forward step in 2008 to establish its Qatar National Vision 2030 (QNV, 2030) as a strategic goal for a global and long-term agenda of reform and modernisation for the coming decades through real estate investment, international projects and expansion in national infrastructure works. The competitive advantage of Qatar's prospective knowledge economy depends on the competency of talented Qataris who are able to adapt to the changing environment by continuously creating new knowledge. Apart from the GCC, the OECD has been known as the essential promoter of the concept of the knowledge-based economy, which influenced European countries to develop policies involving high technology, national systems of innovation, information economies and new economies.

The present research is therefore justified in providing a framework that can be used to manage the talent necessary for the transition of the Qatari economy into a KBE. There is, as yet, no clear blueprint that organisations can use to develop their own talent, thus without the present research, one might say that Qatar would otherwise be unable to implementable its Vision 2030.

1.5.1 Need for the Research

Many scholars and policy makers are interested in studying the Middle East due to the scarcity of data and surveys currently available on the region (Naufal & Gene, 2012). The sharp drop in the oil prices negatively impacted GCC revenues in 2014, which required development plans to sustain the affected economies. Surpassing the Western levels of development in the contemporary world cannot be achieved simply by copying Western policies and experiences and adapting them to Qatar's economy; Qatar's economic organisation culture and behaviour is too different from those in the West. Thus the General Secretariat for Development Planning (GSDP) launched the Qatar National Vision (QNV 2030) in 2008 and the Development Strategy in 2011 as key documents that outlined ways in which to sustain the Qatari economy. However, these documents fail to address many problems and challenges due to their limited understanding of what constitutes the sustainable development of an economy that is knowledge-based (Luomi, 2012). Moreover, human development, as the main driver

of a knowledge-based economy, and the business environment were not afforded as much scholarly attention as technology (Kumar & Welsum, 2013).

The GCC countries – especially Qatar – are facing challenges in sustaining their economies. With such a high migrant-to-citizen ratio of employees in Qatar, it would be no surprise if problems emanate from the workforce that has, up to now, been crucial to the country's industrial development. In the absence of a strategy or framework to develop the Qatari youth, who account for a high percentage of the Qatari population, this research seeks to address existing problems, challenges and potential pitfalls and suggest practical solutions (a framework) and recommendations to local Qatari talent and decision makers regarding the overall management and retention of talented individuals to sustain the necessary infrastructure development for a Qatari knowledge economy by 2030.

1.6 Aim and Objectives

The aim of this research has been to develop a framework to transition the Qatari economy into a knowledge-based system through talent management.

1.6.1 Objectives

- i. To evaluate the current perception of a KBE in Qatar;
- ii. To examine the level of learning (and unlearning) critical to the development of a KBE;
- iii. To critically evaluate talent management (TMS) for a KBE in Qatar;
- iv. To identify and critically assess factors necessary for implementing talent management in knowledge-based organisations in Qatar;
- v. To conceptualise a framework for the implementation of talent management for a KBE in Qatar.

1.7 Research Questions

The following research question has been developed to guide the research process.

What are the current opportunities and challenges faced by Qatari organisations in the development of talent?

1.8 Hypotheses

Hypothesis 1

H₀: The Qatari Vision 2030, as a policy, has no significant impact on the process of actualisation of the KBE in Qatar.

H₁: H₀ not true; The Qatari Vision 2030, as a policy, has a significant impact on the process of actualisation of the KBE in Qatar.

Hypothesis 2

H₀: The current organisational set up in Qatar is inadequate to stimulate a knowledge based economy by 2030.

H₁: H₀ not true.

Hypothesis 3

H₀: Talent management is significantly inadequate to stimulate a knowledge-based economy.

H₁: H₀ not true.

1.9 Scope of the Research

Drucker (1998, cited by Nour, 2014, p.43) stated that, “*Knowledge has become the key economic resource and the dominant - perhaps the only - source of competitive advantage*”. The GCC countries have embarked on ambitious programmes to transform their economies from their heavy reliance on hydrocarbon revenues to sustainable knowledge bases and in doing so secure a competitive advantage. As a result, Qatar launched its National Vision 2030 and a 2011-2016 strategy with the aim of developing the country into a KBE by 2030. However, the two documents did not address the challenges in doing so nor recognise the importance of human resource development as the main driver for economic growth; this was potentially due to the authors’ limited understanding of what constitutes a knowledge-based economy (Luomi, 2012). That, in turn, has persuaded the Qatari authorities to foster considerable infrastructure development and to host international events, such as the

2022 FIFA World Cup, as a way to diversify their economic growth. According to Nour (2014), the intellectual capabilities to create, codify, and transmit new knowledge through information and communication technologies are the key components of a KBE. Therefore, this research aims to:

- Address a gap in Arab Gulf research by providing a comprehensive analysis to improve the understanding of the importance of talent management for a KBE in Qatar, which could also be applicable to its neighbouring monarchies, that share Qatar's economic, demographic, political and climatic conditions (Luomi, 2012);
- Identify the key drivers for a knowledge-based economy;
- Identify the current opportunities and challenges faced by Qatari organisations in the development of talent;
- Develop a framework as guidance for policy and decision makers in Qatar, suggesting the right approach to develop the economy, aligned with Qatar National Vision 2030;
- Bridge the gap resulting from the discrepancy between the Qatari leaders' ambitious plan (QNV 2030) and the country's organisational performance.

1.10 Contribution to Knowledge

This thesis' contribution to knowledge lies in the creation of a framework that can be used at an organisational level to implement talent management with a view to making a direct contribution to the national strategy. Secondly, the research anticipates the addition of knowledge in terms of how companies in the GCC can institute human development through talent management so as to reduce their reliance on expatriate workers, hence reducing levels of unemployment among Qatari nationals. Thirdly, the research intends to produce a series of steps that the government could take to reinforce its policy on transitioning the economy from a carbon to a knowledge base. It is anticipated that these three contributions will enable the current Qatari economy to apply talent management principles by evaluating social, cultural, political and economic factors to establish the detailed plan necessary for the country to develop a KBE.

1.11 Conceptual Framework

The concept of this research is generated from the Qatar National Vision (QNV 2030), which aims to convert Qatar into a knowledge-based economy by 2030. Qatar has so far used infrastructure (construction) development to foster its development plan. However, the reports published by the Ministry of Development Planning and Statistics, such as its National Human Development (2006) and Advancing Sustainable Development (2009) reports, and other publications regarding expanding the capacity of Qatari youth and realising Qatar National Vision 2030, indicate the importance of human development as a core area of focus to sustain a KBE in Qatar. While the absence of a strategy or framework may impede Qatari industries from fulfilling this developmental agenda, the absence of a human development plan will likely cause Qatar to incur an economic deficit.

Human development is a right that all citizens should enjoy. The UN (1986, p.47) defines it as: “*an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can fully realised*”. Therefore, the conceptual framework for the research has been designed to fall under three phases – shown in Figure 1-7.

- (i) Phase one reviews the status quo of the international outlook of a knowledge-based economy, its infrastructure and modus operandi in general;
- (ii) Phase two looks at four major issues:
 - (a) The principles of human capital and how these principles could be applied to Qatar’s youth;
 - (b) Examination of the knowledge-based economic activities that can be used as a vehicle for the development of human capital, based on the 2030 Vision;
 - (c) A review of the long-term knowledge-based infrastructure necessary for the determination of a framework to establish a knowledge-based economy;
 - (d) Establishing a learning organisation where a knowledge worker could thrive and contribute to the operationalisation of the QNV 2030;

- (iii) Phase three reviews the adequacy of the current talent utilisation measures in Qatari industries and identifies a policy, if it exists, that could be used for the establishment of a framework to transition Qatar to a KBE.

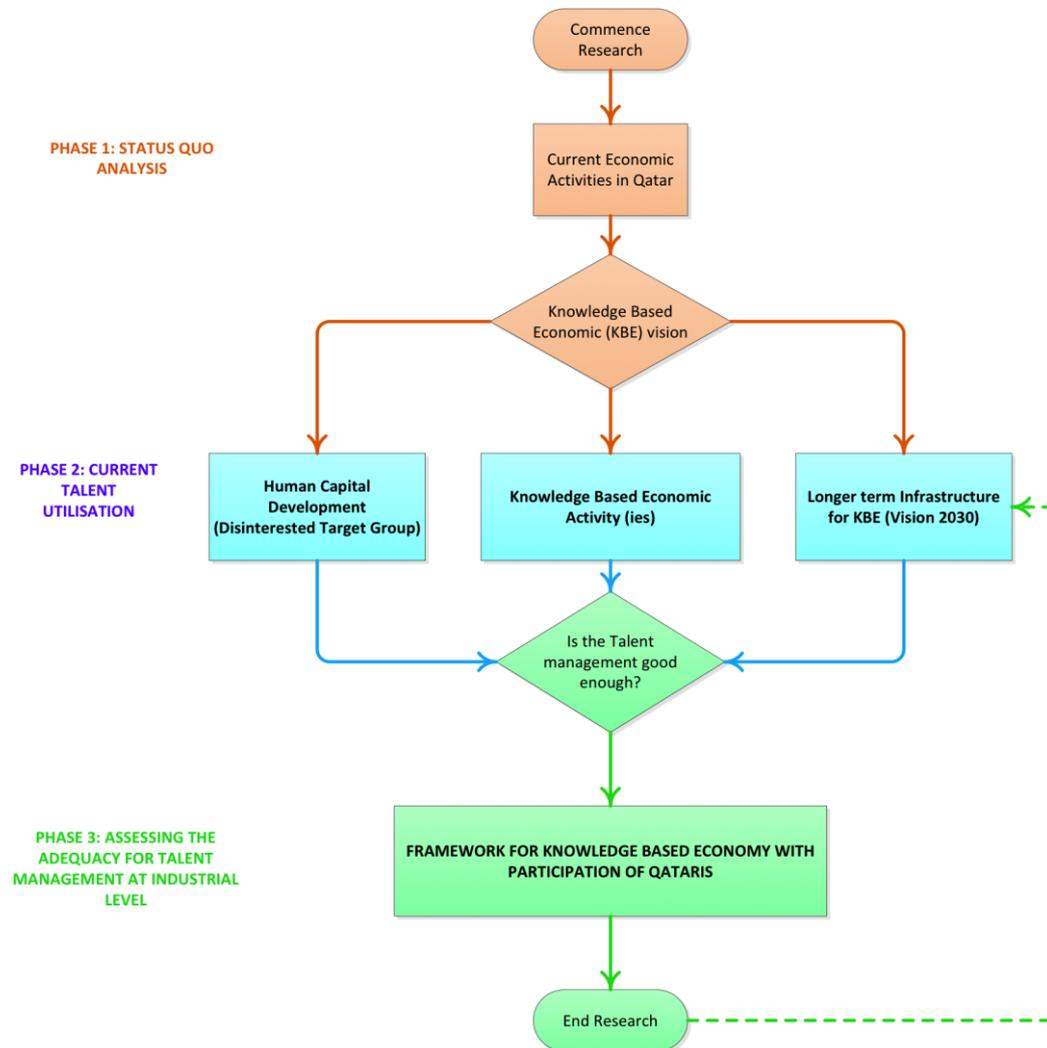


Figure 1-7: Conceptual Framework For The Development Of A Framework For A Knowledge-Based Economy With The Participation Of Qatari Talent

The research should, therefore, explore the performance of organisations in terms of their ability to: (i) create and maintain individualised developmental plans; (ii) ensure work is challenging, interesting and meaningful; (iii) provide clear advancement opportunities; and (iv) implement contingent rewards (Aguinis et al., 2012) if they are to maintain a robust talent management system. According to Vural, Vardarlier and Aykir (2012), talent management, though complex, tends to maximise the

performance of organisations because they can retain strategic workers who, in turn, sustain productivity for their employers. It is on this premise that this research plans to evaluate talent management within Qatari industries.

1.12 Structure of the Thesis

The dissertation has been structured as follows:

- **Chapter One:** introduces the research by setting out the introduction and background and the justification of a need to establish a framework for developing talent within Qatar for the growth of a knowledge-based economy.
- **Chapter Two:** examines the key theories that underpin the rationale for the research. The theoretical framework presents the underlying theories that explain the government's actions and the necessity to ensure that human development is central to the aspirations of policy makers.
- **Chapter Three:** critically reviews the attributes of a knowledge-based economy by exploring the literature of creative societies, knowledge cities and knowledge management and how these concepts support innovation. The chapter also reviews the processes for developing a knowledge economy and how knowledge-based organisations can foster the development of a KBE in Qatar.
- **Chapter Four:** examines the issue of learning and how it can set organisations apart in terms of its constant renewal of knowledge as well as establishing the means by which organisations operating in an economy can continually learn.
- **Chapter Five:** explores the issues of talent management that could be essential for a learning organisation in a knowledge-based economy. The chapter examines the necessary attributes that can form a foundation for human capital development through the fostering of talent. Chapter Five also examines the issues of modernism and nationalisation, and how these can facilitate the development of talent.
- **Chapter Six:** explores the process of research and how it can be designed to carry out a study of this nature. It also justifies the decisions made to design the data collection methods as well as the data analysis and the presentation of the results.
- **Chapter Seven:** presents the quantitative results from the primary data that have been analysed using non-parametric statistical analyses in order to establish how talent management can be used in Qatar as a blueprint for policy makers to

generalise to other industries. The quantitative data have also been used to answer the research hypothesis.

- **Chapter Eight:** undertakes a detailed presentation of the data and demonstrates how the qualitative primary data were analysed. The results are presented in order to arrive at the responses necessary to answer the research questions and hypotheses, and to demonstrate how the objectives have been achieved.
- **Chapter Nine:** synthesises the qualitative primary data from Chapter Eight and the quantitative results from Chapter Nine in a coherent discussion that answers the research questions. The data are also integrated into the ISM model. In addition, the chapter presents a step-wise framework developed using the results from the research. The framework demonstrates the key steps necessary for organisations to develop their talent so that they can align their strategic goals for human development with the aspirations of the government through Vision 2030.
- **Chapter Ten:** presents a discussion of the results and the validation of the ISM model by experts. In particular, it outlines the study's theoretical, methodological and practical contributions to knowledge.
- **Chapter Eleven:** provides the conclusions and recommendations for developing a talent management strategy, also identifying the limitations of the study.

2 CHAPTER TWO: A THEORETICAL BASIS FOR THE RESEARCH

2.1 Introduction

From the outset of this research, it has been established that talent is, *“a code[word] for the most effective leaders and managers at all levels who can help a company fulfil its aspirations and drive its performance[;] managerial talent is some combination of a sharp strategic mind, leadership ability, emotional maturity, communications skills, the ability to attract and inspire other talented people, entrepreneurial instincts, functional skills, and the ability to deliver results”* (Illes, Chuai & Preece, 2010, p.180). Such a definition may not be found in most organisations, especially when one considers the rudimentary nature of some of the work that infrastructure operatives perform. However, Illes et al. (2010, p.180) stated that talented individuals are those who, *“regularly demonstrate exceptional ability and achievement either over a range of activities and situations, or within a specialised and narrow field of expertise; consistently indicate high competence in areas of activity that strongly suggest transferable, comparable ability in situations where they have yet to be tested and proved to be highly effective”*. This is possible even when a task is rudimentary. However, the necessity of such people should not be underrated because without them, work may not progress. According to the Chartered Institute of Personnel and Development [CIPD] (2012), managing talent implies, *“the systematic attraction, identification, development, engagement, retention and deployment of those individuals who are of particular value to an organisation, either in view of their ‘high potential’ for the future or because they are fulfilling business/operation-critical roles”*. The research concept, therefore, has focused on developing a framework that can be used to develop local Qatari talent so that they can fully participate in the evolutionary implementation of the QNV 2030.

This chapter, therefore, transforms the conceptual framework of the research into a theoretical argument that can demonstrate the fundamental theories behind the

selection of talent management as the critical issue for this research. The chapter is structured as follows:

- Brief review of the theoretical framework
- Public policy theory
- Economic growth theory
- Human development theory
- Socio-cultural theory

There is a fundamental need to integrate these theories to understand the theoretical stance of those who are responsible for sustaining the Qatari economy. Public policy theories are aimed at understanding the government's behaviour, economic growth theories strive to understand industrial behaviour, and human development and socio-cultural theories examine worker behaviour. These must be combined to create a concrete theoretical argument for the implementation of the QNV 2030 through talent management.

2.1.1 A Brief Review of the Theoretical Framework

There has been a realisation by the Qatari government, through the QNV 2030, that, for the country to achieve and surpass the UN goals of a sustainable world by 2030 (UN, 2015), it will need to transform its economy from one that currently relies heavily on the oil and gas industries to one that is driven by knowledge. This view implies that if Qatar is to sustain a healthy economic growth, it needs to safeguard its environment. Central to the achievement of sustainable economic growth is human development; this research argues that Qatar must keep hold of talented workers as well as develop local Qataris by investing in talent management. As the global economy deals with sustainable development, businesses must continue to carve out a global presence, even though the global economy remains complex and dynamic in nature. This is because competition has been increasing in the extremely volatile working environment due to global financial and political trends and the like (Tarique and Schuler, 2010). As a result, organisations have to rely on an experienced as well as a younger workforce to ensure that they can remain competitive.

Managing and developing their talent, observed McDonnell, Lamare, Gunnigle and Lavelle (2010), becomes crucial. Aguinis et al. (2012) felt that, because of stiff competition on the world market, a ‘talent war’ has emerged where organisations around the world have realised that they need to hire and retain scarce human capital. This talent war is fierce because talented employees can be an asset to an organisation, not only in terms of the potential revenue or profits that they can bring to the organisation, but also due to the overall success that can be realised. According to Vural et al. (2012) adopting talent management measures, though complex, tends to maximise organisations’ performances because they can retain strategic workers who in turn sustain productivity for their employers. It is on this premise that this research undertakes an evaluation of the theories that underpin the criticality of talent – under the auspices of human development.

All of these main themes need to be explored with regard to their theories; therefore, Figure 2-1 summarises the main areas of the theoretical framework. The main important issues of this chapter are to see how the four key theories discussed above have been integrated in the research, and these are: public policy theory, economic theory, human development theory and social-cultural theory.

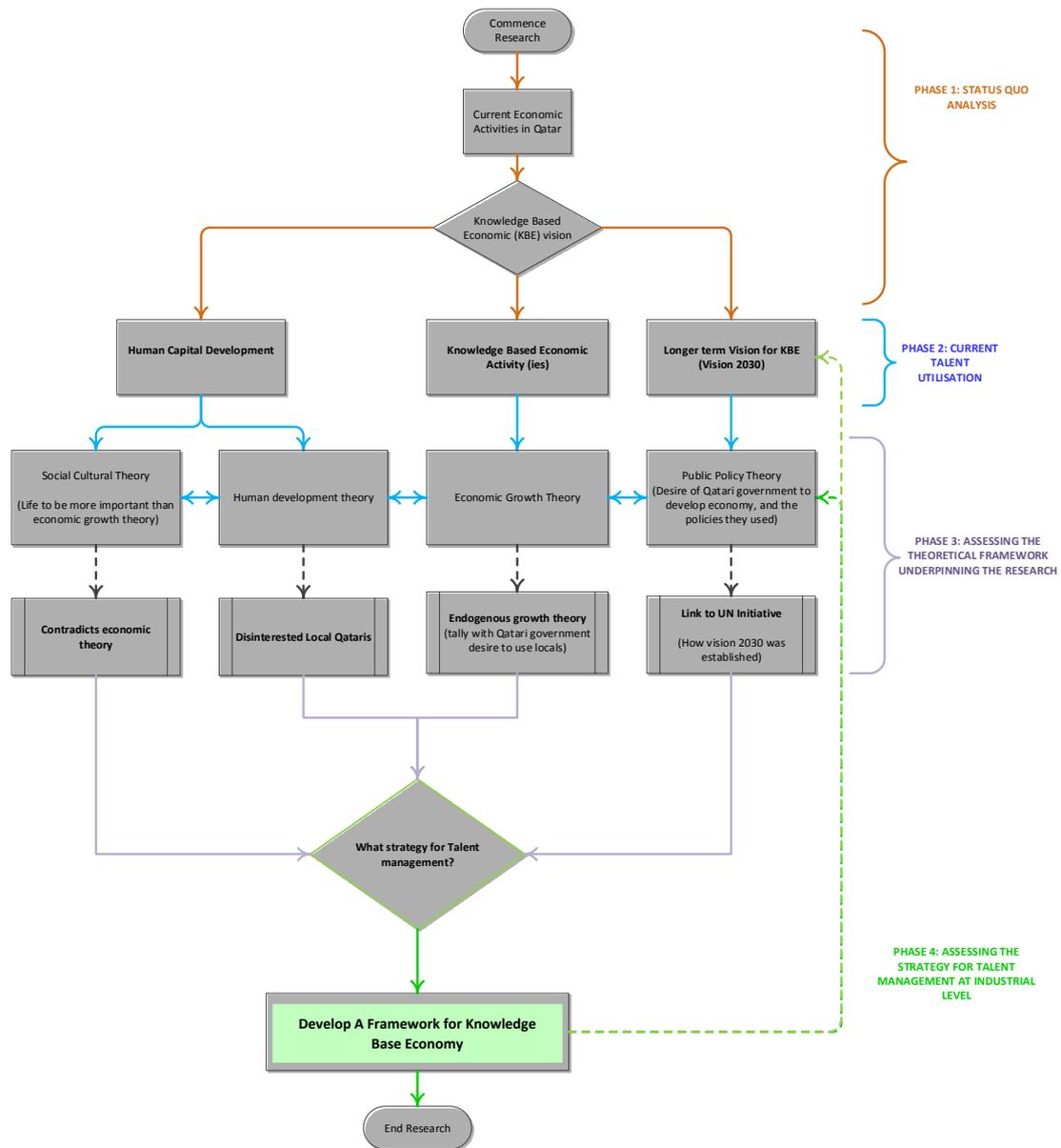


Figure 2-1: Theoretical Framework For The Development Of A Knowledge-Based Economy With The Participation Of Qatari Talent

2.2 Public Policy Theory

According to Cairney (2012), the reason for studying public policy is to understand why particular decisions are made; hence, allowing for the examination of individual policy makers, their beliefs and how they understand and analyse policy problems. It also allows for a detailed examination of institutions, and the rules that policy makers follow to identify the powerful groups that influence how policies are made (Cairney, 2012, p.2). A policy can be defined, “as a web of decisions and actions that allocate

values; and or as a set of interrelated decisions concerning the selecting of goals and the means of achieving them within a specified situation” (Hill, 2013, p.15). Public policy, however, is referred to as *“actions by [a] government, party, ruler and statesman”*; governments or states are basic institutions with superordinate powers over specific territories (Hill, 2013, p.19). Cairney (2012, p.3) defines public policy as *“the sum total of government action, from signal of intent to the final outcomes,”* while theory is *“the set of analytical principles designed to structure our observation and explanation of the world”*. Below are the five main theories of public policy and how they project the type of governmental structure of a nation.

2.2.1 Pluralist Theory

Pluralism is a theory that argues that the legitimacy of leaders comes from the participation of people through a voting process – creating a democracy that is based on the relationship between electorates and leaders of a political party (Hill, 2013). This implies that leaders receive their mandate to make policies from the electorate. Even though pluralism is promoted as a good way to govern, it has been noted that many countries implement it differently because of the powers granted to various institutions, such as the separation of power between the executive and the legislature (Hill, 2013). Thus, power is diffuse and policy results from the interactions of (or competition between) many individuals and groups (Cairney, 2012).

As a means of decision-making, pluralism has been criticised for its power inequality where sectors of the country can have so much power that they can make others do what they would otherwise not want to do. The other criticism of pluralism is that it can create two classes of people: an elitist group of people who are less numerous but can perform all political functions and who monopolise power and enjoy all the benefits that come with it (Hill, 2013). Conversely, the other group of people are more numerous and are directed and controlled by the elitist class. Elitism is when, *“power is concentrated in the hands of a small number of people or organisations that control policy processes”* (Cairney, 2012, p46). For this research, it would be difficult to assess how pluralism has been transmitted in the QNV 2030; unless the research focused on the level of acceptance of Vision 2030 as a means of testing how plural the politics are in Qatar; however, this is not the focus of the research.

2.2.2 Structuralist Theory

Structuralism is a theory that emanates from Marxism, which states that the social structure of a capitalist society is fundamentally a dual class system. On one hand, are the bourgeoisie (owners of the means of production) and on the other, are the proletariat (those who work for the bourgeoisie) (Hill, 2013). The importance of structural theory lies in the political influence that the owners of production exert over the working class; hence, Marxism promoted the political unity of the working class in order to be heard (Hill, 2013). Hill states that, currently, the owners of production can be the state; hence, the state can have political influence because it owns the means of production. As a result, there has been a divergence from classical Marxism through ‘economic determinism’ and ‘globalism’. Economic determinism theory focuses on how politics can be arranged to act as a means of addressing the economic needs of societies – a model that poorer societies should be concerned with (Hill, 2013). Globalism is a theory based on global themes, such as the cross-national diffusion of technology, the development of global financial markets, the emergence of transnational or global corporations, and the emergence of global cultural flows. The theory also addresses major issues, like pollution, international trade standards and the movement of people. All of these issues challenge the perception of state autonomy, stimulating debate on the political arrangements that can make a nation look beyond its borders (Hill, 2013, p.47). This is a crucial theory because the Qatari government participates fully in the production process as it owns many companies; the government therefore has the potential to dictate how the means of production (economy) is structured. As a result, a government policy that aims to restructure an economy, as is the case with the QNV 2030, requires attention from stakeholders. Such a situation highlights the need for this research on how the government can develop a talent management strategy or framework for a knowledge-based economy in Qatar.

2.2.3 Networks Theory

The networks theory advocates creating networks in order to achieve the intended results in governance. For instance, corporatist theory, or corporatism, is when organisations or entities form non-competitive but hierarchically ordered and functionally differentiated categories that can be recognised or licenced by the

government with the powers to represent control of a section of their leaders as well as the ability to articulate demands and support (Hill, 2013). In other words, Hill explains that corporatism supports the creation of policy communities or powerful pressure groups that can operate outside the realm of the state. The pressure they can exert on policy formulation should not be ignored because they can form advocacy coalitions in attempts to achieve their goals. There is no evidence of corporatism in Qatar, neither is there a network of organisations whose aim is to formulate advocacy for government policy.

2.2.4 Institutional theory

According to Hill (2013) institutional theory refers to a political democracy that is not only centred on economic and social conditions but also the design of institutions that are cardinal to the smooth running of its politics. Institutional theory, therefore, promotes the establishment of operating procedures related to constitutions, laws, contracts and the customary rules of politics (Hill, 2013). Therefore, the theory plays two fundamental roles: *“firstly it realises that policy making affects the degree of power that any one set actors has over the policy outcomes; and secondly, the realisation that organisational position of influences actor’s definition of their own interests, by establishing their institutional responsibilities and relationships with other actors”* (Hill, 2013, p.73). According to Cairney (2012) there is a different outlook to institutionalism as it no longer implies established organisations, such as the legislature, courts, and executives, nor the buildings that represent these. Rather it means, *“regular patterns of behaviour and the rules, norms, practices and relationships that influence such behaviour”* (Cairney, 2012, p.69). In addition, *“institutions are not only the buildings or arenas within which people make policy; rather they are seen as rules of behaviour that influence how they make policy”* (Cairney, 2012, p.69). Institutional theory applies to the QNV 2030 because the government introduced the strategy 2011 to 2016 that was to be implemented by two new ministries – the Ministry of Youth and the Ministry of Administrative Development Labour and Social Affairs – alongside the Qatar Leadership Institute (QLI). This implies that government institutions are fundamental to the way policies are implemented in Qatar, making institutional theory critical to this research.

2.2.5 Rational Choice Theory

Rational choice theory is based on the premise that leaders of modern times can (i) promote, “*methodological individualism, accounting for outcomes in terms of individual choices; (ii) they can use deductive methods by deploying models to predict actions; (iii) they behave rationally; (iv) have self-interests; and (v) deploy subjectivism or political individualism*” (Hill, 2013, p.93). In essence, Hill explains that, in this theory, there is an element of development within a political marketplace where leaders compete for votes by adding economic reasoning, which means self-interest becomes the dominant motivational force in political behaviour. Through undertaking thorough studies of choice and their effects, leaders are therefore able to apply comprehensive rationality before they make decisions (Cairney, 2012). Rationalism is also linked to incrementalism – a theory associated with the assessment of opportunity cost – where the value of foregone options are considered when studying other options. This means that leaders can choose to study fewer options in more depth (Cairney, 2012). Even though the government of Qatar has been instrumental in creating the QNV 2030 and the 2011 to 2016 strategy, it can be argued that they have been rationally developing their policies even though there is no issue of voting for leadership power. This is because the government structure is not based on such a system whereby leaders are voted in; rather, leadership is appointed by the Emir (king), based on traditional leadership authority.

2.2.6 Public Theory and the Qatari Leadership

To understand the importance of public policy theory to the state of Qatar, it is necessary to examine the leadership in terms of the hierarchical structure of the ruling class. According to Fromherz (2012), Qatar has rapidly changed from being a small, highly traditional, tribal society – a society languishing from the collapse of pearl prices in the 1930s and 1940s – into a vibrant modern nation that currently has a higher per capita income than Luxembourg. The strategic leadership of the ruler, Sheikh Hamad bin Khalifa Al-Thani, has effected this transformation, by over centralising the Emirati power (Fromherz, 2012).

Despite the over centralisation of power in Qatar, the ruler has worked to ensure that the country is not associated with what it is ‘now’ – a nation dominated and built by

expatriate labour – but with what is ‘behind it’ – a past reconstructed and reconstituted into nationalised historical moments associated irrevocably with the right of Al-Thani to rule and the right of the Qatari Citizen to enjoy all of the benefits of modern materialism at the service of reconstituted, neo-traditional identities. This deliberate policy by the ruler aims to modernise the nation (Kamrava, 2012b) by ensuring that there is finance for every local Qatari to improve their livelihood (Seznec, 2012). This, it is believed, is the best response to the United Nations’ (UN) agenda to transform the world through sustainable development by 2030 (United Nations, 2015), considering that the state of Qatar has been a member of the UN since 1971.

According to Fromherz, (2012, p.17), Sheikh Tamim bin Hamad bin Khalifa Al-Thani “*does not need to depend on the citizens of Qatar for revenue because he has a personal income in the billions, even if Al-Thani does depend on the citizen elite and a shared sense of history for legitimacy. He does not use oil and gas revenue to placate and control; rather Qatar’s rulers have instead used oil wealth to encourage, push and prod traditional Qatari tribes towards globalisation and the adoption of mainly western institutions*”. It can, therefore, be argued that the policy of developing a knowledge-based economy (Ulrichsen, 2012) has the full support of the ruler, and is being operationalised through various government structures, as expected by the UN agenda 2030 (UN, 2015). There is already evidence that organisations have embarked on employing local people in managerial positions; for instance, Fromherz (2012) states that there are fewer Qataris ready to engage in non-managerial tasks than in other Gulf countries, meaning that the redistribution of oil and gas revenues has made Qataris among the richest people in the world across the social spectrum. It is also noticeable that the QNV 2030 does not operationalise how to transform the talent of local Qataris to drive the economy into a KBE. This, again, justifies the need for the present research, which can use current public policy to propose a strategy for the government to use to encourage talent management at an industry level.

2.3 Economic Growth Theory

Knowledge is considered a key driver for economic productivity and growth. Across the globe, leaders are realising the importance of technology and seeing that economic

performance can be boosted by the creation and sharing of knowledge. This requires a skilled labour force to adapt their skills and competencies to sustain the economic growth (OECD, 1996). According to Robinson (1972, p.54), “*economic growth theory covers a myriad of theories that focus on the mechanism with which a nation can increase the aggregate product, either total or per capita, without reference to changes in the structure of the economy or in the social and cultural value systems*”. On the other hand, economic development theory looks at, “*economic growth that includes the social and cultural changes which occur in the development process*” (Robinson, 1972, p.54). The importance of economic theory to this research starts with how nations view economic growth. For instance, Harbison and Myers (1964) theorised that the world is driven by the desire to develop, thus for underdeveloped countries, the revolt against poverty, disease, ignorance and international exploitation has been going on for decades. For developed nations, the drive has been centred on a continued acceleration to exploit developmental opportunities on earth and space alike (Harbison & Myers, 1964). To this effect, Harbison and Myers state that economic growth theory is centred on the perception that modernisation and development are matters that impact productivity, national income, balancing payments, and the savings or investments in a particular country.

According to Rivera (2016), the theory of economic growth becomes strong when assessed from two inter-related theories, namely: (i) neoclassical growth theory, which adheres to promoting free markets, exports, trade liberalisation, and foreign investment in an attempt to spur efficiency and development; and (ii) endogenous growth theory, which basically supports the active role of the state in promoting economic development through direct and indirect investment in human capital. Hunt (2007, p.274) opined that, in an ideal economy, a nation would do well to support growth by, “*increasing investment, and the dynamic competition model, which maintains that growth results from the innovations that stem from the process of competition*”, hence allowing for dynamism in the process.

Over the years, economists have argued for government or state participation in the promotion of economic growth, resulting in market antagonism between the state and the market (Reinsert, 1999). However, the right balance of state policies can lead to, “*well-functioning markets by providing a legal framework, standards, credit, physical*

infrastructure and if necessary to function temporarily as an entrepreneur of last resort” (Reinert, 1999, p.268). Other nations opt to attract foreign direct investment (FDI) as a model through which they can seek encourage economic growth (Herzer, 2010).

As a nation, Qatar has been working to develop the economy into a knowledge-based economy using the Vision 2030 (QNV, 2016). As the Vision 2030 policy is centred on local Qataris, the most ideal economic growth theory for this research is the “endogenous growth theory”. The word endogenous literally means, “*found or coming from within something*” (Cambridge University Press, 2016). According to Aghion and Howitt (1998), endogenous economic growth involves a two-way interaction between technology, innovation and economic life, where technological progress transforms the very economic system that creates it. The purpose of endogenous theory is to seek an understanding of this interplay between knowledge as an asset impeded by human capital and various structural characteristics of the economy and society, and how such interplay results in economic growth (Aghion and Howitt, 1998). Romer’s (1994) ‘endogenous growth’ embraces a diverse body of theoretical and empirical work that distinguishes it from neoclassical growth theory; this is because it emphasizes the argument that economic growth is an endogenous outcome of an economic system, not the result of forces that impinge from the outside. According to Pack (1994), endogenous theory may seem to explain the growth pattern over time of national economies; however, the reality is that it basically expands the existing growth theory rather than provide a powerful organising framework for thinking about actual growth phenomena. However, economic growth cannot be achieved if there is no link with human development, as it is, “*a process [for] increasing the knowledge, the skills and the capacities of all the people in society*” (Harbison & Myers, 1964, p.2). It is for this reason that economic growth theory has been considered crucial to this research, the aim of which has been to establish a detailed strategy – herein called a framework – for the management of Qatari talent to enable the development of a knowledge-based economy in accordance with Vision 2030.

2.3.1 Natural Resources and Economic Growth

Within economic growth theory, it is vital to assess the view that many economies can grow if they are driven by natural resources (Havranek, Horvath & Zeynalov, 2016). However, it has been found that, even though natural resources can underpin economic growth, other aspects of the economic structure are necessary for a nation to grow its economy; not all natural resources have had a positive impact on economies around the world (Havranek et al., 2016). For countries in the Middle East with a resource-based economy, the main natural resource has been oil and gas – a category of energy resource. Kumar, Stauvermann, Loganathan and Kumar (2015) demonstrated that there has been a nexus between energy resources and economic growth, among other issues. It can be argued that there is a positive correlation between access to energy resources, such as oil and gas, and economic growth – as demonstrated by the GCC countries (Kumar et al., 2015). For instance, (Ahmed, Mahalik, & Shahbaz, 2016, p.213) found that not all countries benefit from the argument that, “*economic growth is a function of natural resources, exports, capital and labour*”, and a good example of this is Iran. This implies that over reliance on natural resources can either hinder or promote economic growth depending on how well the other elements of the economy are structured. It also implies that nations have a varied approach to how the structure their economies even though the growth theory remains the same for all instances on paper (Gabriel, Jayme Jr & Oreiro, 2016). Nevertheless, the Qatari Vision 2030 places an emphasis not on its natural resources but on developing its people so that the economy can be transformed into a KBE.

2.3.2 Theory of Migration and Economic Growth

According to Bove and Elia (2016), the theory of economic growth for many countries around the world would not be complete without examining the potential impact (positive or negative) of migration and diversity within their society. They argued that, on one hand, it has been theorised that as migrants move from country to country they positively impact the economies they go to because they tend to take with them the necessary skills and perspectives that nurture technological innovation, hence stimulating economic growth as a result (Bove & Elia, 2016). On the other hand, they suggested that migration can negatively impact economic growth because

the *increased heterogeneity may undermine social cohesion, create coordination, and communication barriers*” (Bove & Elia, 2016, p.1). It shows that, for a country to spur economic growth using migrants, it has to institute measures to maximise the benefits and minimise the side effects of migration on social and cultural cohesion within the society. It can be argued that the theory of migration on economic growth, therefore, becomes an intricately interwoven factor in the continued expansion of economic growth theory, whose fundamental composition should include “*not only income but also human capital, demographic transition, technology/urbanisation, institutions, and economic integration*” (Hafner & Mayer-Foulkes, 2013, p.107) among other key factors. For instance, Hafner and Mayer-Foulkes, (2013, p.108) suggested that there was a need to understand the causal determinants of real economic development other than those which are based on the argument that, “*high income, high human development and low fertility rates*” form a crucial set of factors necessary for economic growth. The inclusion of migration theory in this research is not only to recognise the expanding view of economic growth theory but also to acknowledge the criticality of migration to Qatar as it strives to transform its economy into a KBE (QNV 2030; 2016).

2.4 Human Development Theory

Harbison and Myers (1964, p.2) stated that human development theory is based on the premise that, “*the accumulation of human capital and its effective investment*” forms the prerequisite for the development of an economy. Politically, human resource development prepares a society to participate in the political process, hence unlocking the door to modernisation (Harbison & Myers, 1964). The implementation of human development theory could be achieved, (i) through formal education from pre-school to tertiary education; (ii) through ‘on the job’ training programmes, such as apprenticeships; and (iii) through self-development when individuals seek greater knowledge, skills or capacities through courses or by learning from informal sources (Harbison & Myers, 1964). Human capital is a major determinant of economic growth and plays an important role in the technological process of countries; however, the issue of human capital in the process of growth has been neglected (Teixeira & Queiros, 2016). Rivera (2016) suggested that human development does not only impact economic growth but also creates an environment for where synergies can be

achieved and an economy can be developed in myriad ways because developed humans can apply themselves in many ways.

Rivera (2016) also observed that modern societies currently aim to achieve political, social and economic development; however, human resource development is essential for all of these factors. Harbison and Myers (1964) suggestion that there is a positive correlation between a lack of human resource development and the level of underdevelopment experienced by many nations; they explained that this is mainly because they do not give their people the opportunity to expand their potential capacities so they can serve their societies. In other words, human resource development has been seen as the driver for progress because it, *“takes human agents to mobilise capital, to exploit natural resources, to create markets and develop an economy”* (Harbison & Myers, 1964, p.13).

Even though human resource development can be considered the most realistic measure of political, social and economic development, it cannot explain why countries with a strong base of human resource development as well as abundant natural resources are not fully developed (Harbison & Myers, 1964). Harbison and Myers suggested that a failure to develop the organisations and institutions that characterise a progressive society has been a major factor in the stagnation of many countries. Aiginger (2005) argued that nations with highly educated and developed workers have been addressing the issue of over-qualified labour in the market using macroeconomic policies through regulations; however, such regulations have, in turn, impacted growth. The end result has been the evolutionary trend of allowing for flexible employment policies that could constantly be adapted to the needs of the economy, as has been demonstrated in Europe where rigid labour market policies have impacted economies (Aiginger, 2005). This, however, does not translate into reduced investment in human development; rather, there has been continued investment in human capital as a means to unbundle the elements of economic development (Faria, Montesinos-Yufa, Morales & Navarro, 2016).

There has been massive change in the political economy, infrastructure and physical, built environment of Qatar, demonstrating that there has been heavy investment in human capital development in the country; however, there is little evidence that

Qatari citizens have changed as a result (Fromherz, 2012). This means that the changes within Qataris citizens' basic social milieu are not sufficiently evident to be linked to human capital development. It also means that, even though change has taken place within the Qatari society, these changes have not been significant enough to change Qatari society from its current system of governance and patronage (Fromherz, 2012). However, the best indication of significant change may even be the creation of a Qatari intellectual tradition and an articulated opposition to the particular manifestations of 'modernity' in Qatari society (Fromherz, 2012).

2.5 Socio-Cultural Theory

According to Brinkman and Brinkman (2001), the application of new growth theories does not guarantee a social and cultural balance in an economy. They argued that growth theories require additional support in the form of criticism and questioning of the grounds upon which they stand (Brinkman & Brinkman, 2001). They suggested that economic growth should not be mistaken for economic development, and that there is over simplification of the impact of economic structural transformation on culture. This means that, as long as growth theories allow for advancement in technology and the like, the impact of such growth on culture should not be ignored because culture is dynamically linked to the structures of the economy (Brinkman & Brinkman, 2001). Therefore, as the economy grows, it is vital to expect changes in the socio-cultural wellbeing of any society; hence planning for the social-cultural impact of a nation as its economy grows forms a core argument of this section. For example, when human development exceeds the economy's capacity to employ highly-skilled people, people become negatively impacted (Borghans & de Grip, 2000). This is because highly skilled workers take up jobs that could otherwise be filled by people of a lower level of education because the economy cannot absorb all of the more educated people (Muysken & ter Weel, 2000). This means that they are overeducated and over-skilled; hence they have to de-emphasise their qualifications to find a job (Borghans & de Grip, 2000).

In addition, Zwick (2000) stated that over-education can lead to the crowding out of low-skilled workers as well as influence a reduction in wages. The issue with over-education is that, while human development theory places the development of humans

at the centre of economic growth, over investment in in terms of education and training can also have a negative impact on people's capacity to earn and on the type of jobs they can do. If, therefore, a government sees the socio-cultural impact of economic growth as an important issue, they can review how their policies are implemented so as to lessen the negative impact on society. Hill (1990) explained that even though an economy could have abundant natural resources, it needs to generate and secure equilibrium with the environment by ensuring that its economic activity does not impact human welfare and destabilise societal and cultural balances. For instance, developed economies can stagnate if their societies are not equipped with the same level of technological advancement as is required because people are denied access to a key factor that their society may have become used to (Bojnec & Fertő, 2012). In a way, social-cultural theories contradict economic growth theory, as life is often considered more important than economic growth, hence socio-cultural theory should be considered superior than other theories of economic growth.

For the Qatari culture, it is important to understand that, *“what you are in terms of inherited relations with others, is more important than what you do; for instance, the names have [a] long string of ancestors rather than merely one in the case of Western names. The transfer of identity from what one is to what one does can create tremendous fissures in society”* (Fromherz, 2012, p.5). Therefore, Qatari culture, heritage and tradition are highly praised and tribal lineage becomes the basis of symbolic forms of representation. However, these traits are, over time, being slowly eroded and disempowered, changing the largely independent tribal emirs into citizens, and citizens into dependent subjects (Fromherz, 2012). Considering that, *“almost everything in its social economic and governmental structures, from ‘per capita electricity consumption to educational levels, to literacy’ has been profoundly shaped by oil revenue”* (Fromherz, 2012, p.111) one could expect that, if an individual in Qatar is not connected to a line of leaders or influential decision makers, they may not benefit from the societal changes taking place in the country.

2.6 Summary

The integration of theories herein plays a crucial role in the direction taken for the research with its aim of ‘assessing if there is an existence strategy for talent

management in the Qatari sectors’ and ‘developing a framework for transitioning of the Qatari economy to a knowledge-based one through talent management’. First and foremost, the Qatari National Vision 2030 emanates from the political system and the governance structure of the country, where leaders made the decision to set the Vision 2030 scheme in line with, or in response to, the United Nations’ Charter for Sustainable Development by 2030 (2015). Hence the theory of public policy is crucial to the way in which the research develops because public policy is a guide to economic actors, including industries and labour force activities, that are linked with how the economy can respond to the political structure (Zulhibri, Naiya & Ghazal, 2015).

Secondly, the QNV 2030 has been designed and established to primarily spur economic growth by transforming the economy into a KBE and reducing the country’s reliance on natural resources. Therefore, the theory of economic growth has been considered crucial to the research because it facilitates the explanation of how economic growth is achievable in theory (Colino et al., 2014), hence facilitating the choice of talent management – an issue that underscores the criticality of knowledge, innovation and human development in an economy.

Thirdly, an examination of human development theory tallies with the thrust of the QNV 2030, the focus of which is to develop local Qataris with a view to spurring endogenous economic growth through human development. The theory links with public policy and economic growth theories because the government decided to institute a policy that focuses on the development of local Qataris as the backbone to realise a knowledge-based economy in Qatar. Finally, the fourth issue has been that, while the government created the policy to develop a knowledge-based economy, there is an argument for the expectations of social and cultural impacts on Qatari society. For this reason, it has been vital to briefly review the impact that public policy, economic growth, and human development theories have on society through the institutions mandated to implement such policies (Teles, 2007).

Having explored the relevance of the public policy theory, economic growth theory, human development and social-cultural theories, it is crucial to examine how these theories impact KBEs in general. Therefore, the Chapter Three explores the main

drivers of a knowledge-based economy and how it evolves. Central to Chapter Three are economic growth and human development theories because organisations that need to grow economically need to have a knowledge-based workforce for their productivity to improve.

3 CHAPTER THREE: A CRITICAL REVIEW OF THE MAIN DRIVERS OF A KNOWLEDGE-BASED ECONOMY

3.1 Introduction

For an economy to be knowledge-based, it requires economic activities and those who perform them to be knowledgeable. Therefore, this chapter critically reviews literature about the key drivers to enhance the conceptual and theoretical background for this research. World economies have a strong belief that ‘knowledge workers’ – herein defined as ‘thinking jobs’, such as engineers, lawyers and doctors – have a crucial role in developing an economy, especially if the working environment is as flexible as possible in order to tap their full potential (Davidson, 2014). For instance, Davidson (2014) argued that research conducted in the United Kingdom (UK) shows that, if flexibility was allowed for knowledge workers, an additional £90bn could be unlocked for the UK economy. The issue of this research, however, is not concerned with flexibility requirements in the economy for knowledge workers; rather it is to establish a framework for managing local Qatari talent in the absence of a policy or strategy targeting the development of Qatari youth, so that they can spearhead the process of transforming the economy into a KBE. Before establishing the key drivers to facilitate this process, it was vital to consider the attributes of a KBE; hence, this chapter examines the importance of the following to achieve QNV 2030 by managing Qatari talent:

- An overview of KBEs;
- Knowledge management and traditional economies;
- Knowledge creation for knowledge management;
- Knowledge management and its importance to KBEs in terms of;
 - Sharing
 - Capture
 - Transfer
- Creative society as an ingredient for a KBE
- Knowledge cities to facilitate a KBE

- Knowledge-based organisation
- Organisational learning (Chapter Four)
- Talent management (Chapter Five)

The latter part of the chapter undertakes a critical review of how important a knowledge worker could be in driving the transformation of an economy, such as Qatar's.

3.2 Knowledge-Based Economy: An Overview

The theory of economic productivity, as elaborated by Nelson and Winter (1982) and quoted by Dang and Umemoto (2009), relies on the argument that varying levels of routine have to be performed every day in order to keep economic performance active. However, with the help of knowledge, the routines of productivity have to change in order to reorient economic activities. With this in mind, Dang and Umemoto (2009, p.359) argued that the, *“knowledge-as-capability view is the most appropriate to explain the knowledge economy”*. It means that, if knowledge is considered a tool to build capacity, it could therefore be linked with the knowledge worker. It is the worker who has to change or reorient the routines of production that an economy needs for it to keep developing. Carrillo (2008) stated that, for the world to experience knowledge-based development, it would have to expend resources on core issues that affect humankind, hence creating a link between the knowledge-based economy and the activities that affect people.

Huosong, Kuanqi and Shuqin (2003) argued that the creation of knowledge systems that could be shared at an organisational level result in competitive advantages, creating a situation where shared knowledge can benefit organisations. This could involve the sharing of knowledge using systems; however, for this, the workers need to be considered. This implies that there is an argument that the analysis of knowledge policies needs to go beyond information and technology; in developing a knowledge-based economy, it is necessary to incorporate a robust and more encompassing image of the future (Hearn & Rooney, 2002). The image of the future is crucial, and this may not be positive if the workforce is not part of that image. In a subtle way, Hearn

and Rooney (2002) support the notion that a KBE directly impacts knowledge workers because the all-encompassing image would have the worker within it.

3.2.1 Defining Knowledge-based Economy

Investment in information and knowledge are key engines to economic growth (Nacheff, Jantan, & Boularas, 2014; OECD, 1996). According to Hvidt (2014), a KBE can be defined as an economic success that is increasingly based on the effective utilisation of intangible assets, such as knowledge, skills and innovative potential, as the key resource for an economy to be competitively advantageous over other economies. It also implies that an economy can be structured in such a way that takes into account the need to transition from a low to a high-tech economy, and to a knowledge-intensive economy for both private and public sectors (Kamrava, 2012a; 2012b) where knowledge becomes the core tool for citizen or key participant empowerment in the economy (Hvidt, 2014; Ulrichsen, 2012).

According to Ergazakis and Metaxiotis (2011), for any policy on a knowledge-based economy to perform well, it has to take a, “*holistic and unified approach*” in order to facilitate the, “*practical formulation of citizen-centric knowledge-based development strategies; knowledge-based urban planning; knowledge-based development assessment and metrics and the practical aspects of implementation of knowledge-based development approaches*” (Ulrichsen, 2012). This indicates a holistic approach that brings together researchers, industries, policy and decision makers (Tadros, 2015); it shows that implementing policies that can affect all citizens and includes workers as part and parcel of that category. It is therefore possible to see that a KBE significantly impacts people (Ulrichsen, 2012). For the GCC countries, the ethos to introduce a KBE has largely been threefold: firstly, to catch up with the development of the First World; secondly, to reduce their over reliance on hydrocarbon driven economies; and thirdly, to use the revenue from hydrocarbon to transform their economies through the empowerment of their people as well as the promotion of innovation (Osman, 2014). However, according to the World Bank (Chen & Dahlman, 2006), the successful implementation of a KBE will depend on long-term investment in education, innovation capabilities, modern information infrastructure, and a conducive economic environment.

3.2.2 Innovation and its Criticality to the KBE

Transforming, creating and sharing knowledge is central to a KBE and its economic growth, and can lead to innovation. According to Osman (2014, p.6), innovation is, *“the implementation of a new or significantly improved product, process, a new marketing method, or a new organisation method in business practice workplace organisation or external relations”*. Metcalfe (1995, cited by OECD, 1997) defined national innovation as, *“that set of distinct institutions which jointly and individually contribute to the development and diffusion of new technologies and which provides the framework within which government form and implement policies to influence the innovation to create, store, and transfer, the knowledge, skills and artefacts which define new technologies”*. This means that innovation requires, among other things, the incorporation and engagement of the efforts of industries, people, the government, and educational institutions in the economy to enable access to information and adapt technological systems to suit their use, so as to create and transfer both explicit ‘know-how’ knowledge, and tacit ‘know-what’ knowledge for use in the economic structure. It also implies that innovation is created in the knowledge management phase (OECD, 1997; Osman, 2014). This means that investment in human development, research development and the role of policy makers to augment innovation performance are the main drivers for knowledge, and act as the ‘source of discovery innovation’ (Egbu, 2015; Osman, 2014). However, although Qatar is classified as having the highest GDP per capital in the world, it ranked fiftieth in the Global Innovation Index (GII) in 2016, and 47th in 2014, as illustrated in Figure 3-1; however, to achieve a KBE, an economy must rely on innovation.

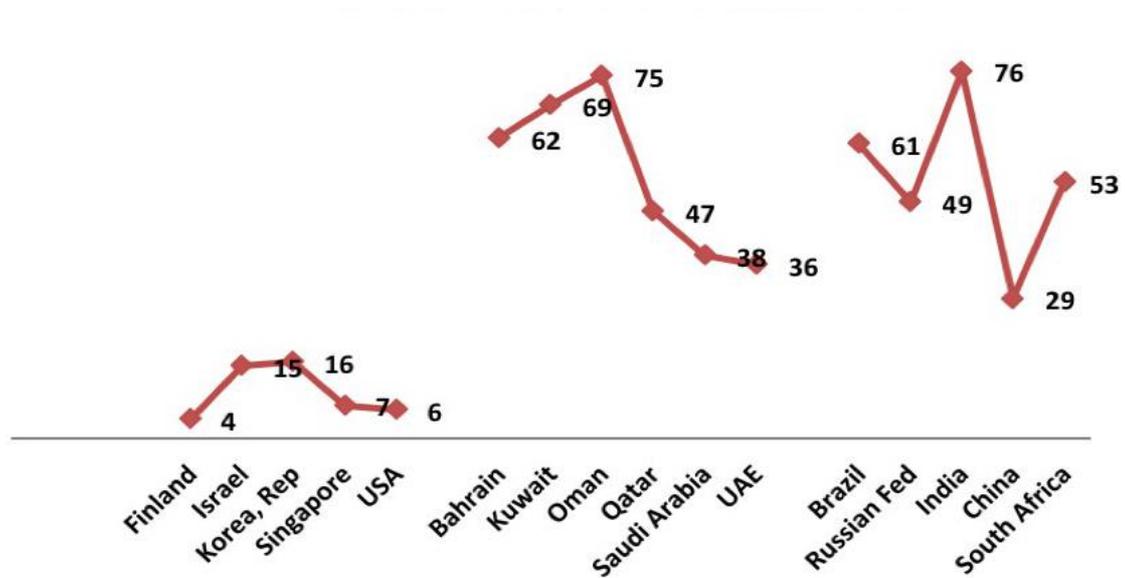


Figure 3-1: Global Innovation Index For 2014 (Source: Tadros, 2015)

In most economies, organisations have traditionally formed the basis upon which productivity is designed. According to Zanini and Musante (2013, p.488), the trend within the production systems of many nations is bound to change from primordially rudimental economic production systems to those with the, “*intensive application of knowledge*”. Zanini and Musante (2013) argue that, essentially, there is nothing wrong with the production systems that ensure that the nature and scope of human work can remain contemporary; however, the optimisation of economic activities and their inherent costs (and benefits) is envisaged as possible if ‘knowledge and ideas’ feature as the main factors upon which the future prosperity of an organisation or an industry thrives (Tocan, 2012, p.74). In other words, when knowledge is capitalised on within an economic system, the wheels of that economy could be enhanced not only in terms of efficiency but also in terms of competitiveness (Tocan, 2012).

According to Hudson (2011), economic activity is seen by the world as purposeful human behaviour that has a high dependence on knowledgeable behaviour and intentional human behaviour; this means that if humans involved in economic activity are deprived of a knowledge base, economic activity would not only be impossible but inconceivable. Therefore, knowledge should not be seen as, “*something that has only recently become relevant to economic performance and to understanding of the economy and economic development; rather as something that is crucially vital to all*

economic activity, and that different types of such activity draw upon and require different types of knowledge” (Hudson, 2011, p.997).

Therefore, for the GCC countries to develop a KBE in an evolutionary manner, there is a need to engage robust innovation ecosystems that can translate novelty into practical business concepts that can create and lead the commercialisation of knowledge in day-to-day economic, social and cultural activities (Hvidt, 2014; Osman, 2014; Ulrichsen, 2012). Apart from having innovation systems and effective information technology, excellent human resource has been identified as a fundamental issue for the development of a sound, knowledge-based economy (Chen, 2008). Simona, Sonja and Matjaž’s (2014) view supported that of Chen (2008) by arguing that future economic performance relies heavily on non-technological innovations that are linked to human-centred creativity. In other words, the policy of creating a knowledge-based economy can only be achieved if there is substantial investment in people. Asongu (2014) compared the knowledge economies of the Middle East and discovered that education (Figure 3-2) and information technology (Figure 3-3) have an impact on the performance of an economy; however, more has to be done to ensure that the components of the KBE are continuously monitored since they have inherent dynamism in their character.

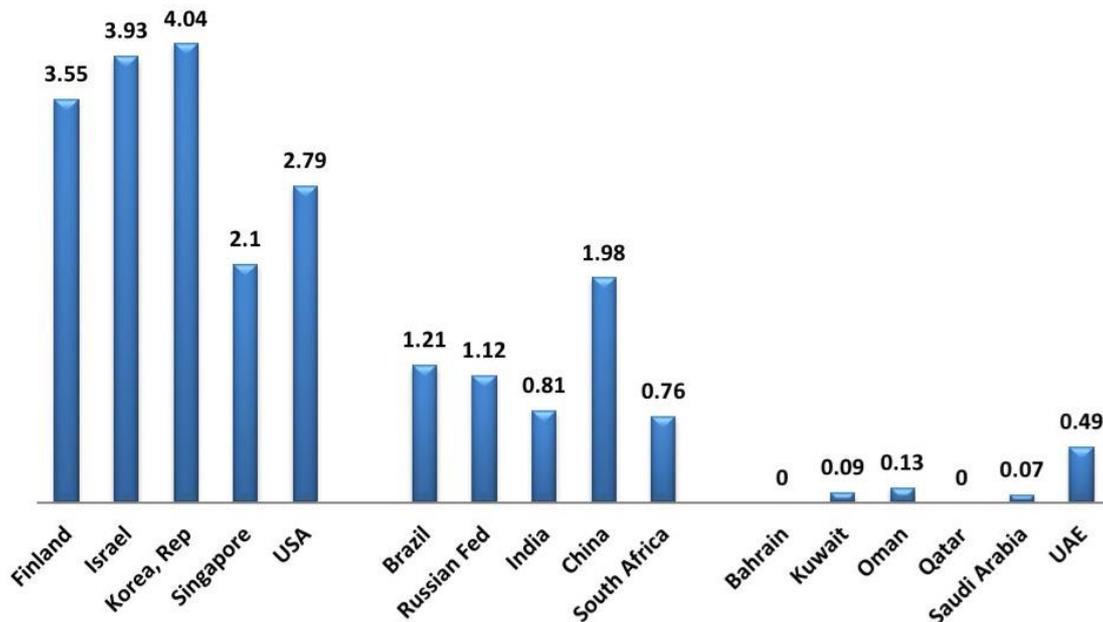


Figure 3-2: Research And Development Expenditure % Of GDP For 2012 (Source: Tadros, 2015)

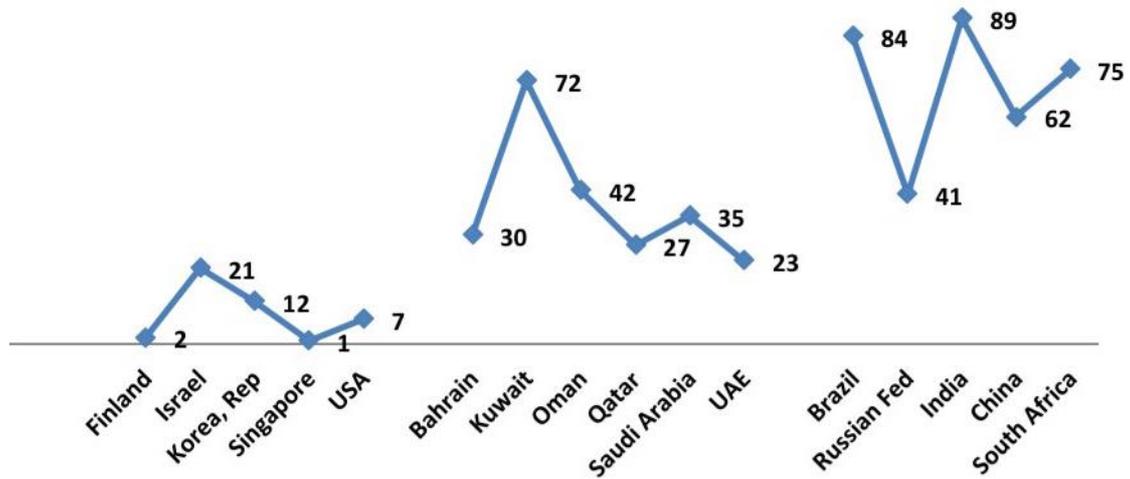


Figure 3-3: Network Readiness Index Rank For 2015 (Source: Tadros, 2015)

For example, workers' knowledge could be one factor that could keep changing depending on circumstances. Clarke (2001) argues that KBEs rely on their effectiveness in developing and utilising knowledge; however, knowledge is embodied in products and services where digital networks provide access to vast amounts of data and information. Knowledge management initiatives cannot be successful unless they are integrated into business strategies, and the core capabilities of the organisation can synthesise intellectual activities involved in the creation of knowledge communities of practice. Essentially, Clarke (2001) identifies that the elements of objectivity in creating a KBE are present at an organisational level; however, there has to be a realisation that the intellectual capabilities of the practising communities are essential for any organisation to utilise KM. This means that the investment in people or workers to enable them to participate in the innovative transformation of knowledge and thus better the means of production is critical to the success of a transition to a KBE. Figures 3-1 and 3-2 illustrate Qatar's current weakness in terms of innovation and research and development (R&D).

3.3 Knowledge Creation for Knowledge Management

In his analysis of the issues of knowledge, economy, technology and society, Rooney (2005) examined the contextual meaning of 'knowledge' in a form where a cascaded

pattern of the concept was applied. First and foremost, Rooney (2005) acknowledged the elusiveness of the meaning of knowledge. However, he uses the term to describe development and language. Because of the varied nature of the level of development at any point in time, *“knowledge of the day is a key means of exercising power to mobilise various economic, social and cultural resources, and that this power becomes manifest in the language of the dominant discourse”* (Rooney, 2005, p.406). In its basic form, knowledge is defined as, *“the information, understanding and skills that you gain through education or experience”* (Oxford University Press, 2013). In an organisational setting, knowledge is said to refer to the intangible assets – namely, information, understanding and skills – available within an organisation whose key role is to facilitate competitive advantage for the company (Jimenez-Jimenez & Sanz-Valle, 2013, p.28).

Therefore, there is a general realisation that an organisation can perform well if it can manage the knowledge created in its production systems; however, despite this realisation, Jimenez-Jimenez and Sanz-Valle (2013) explained that firms have, until recently, ignored the human element of organisational knowledge management due to its highly intangible nature and given that its link to human resources has been neglected over the years. It cannot be disputed that there has been an internationally accepted view that the creation of knowledge in an organisation is crucial for employees to perform well; hence, the management of that knowledge has centred on information technology (IT) (Durcikova & Gray, 2009). There has been a focus on the development of IT tools targeting better accessibility to data repositories that have been designed to capture, *“employees’ knowledge and make it available to a broad range of potential recipients”* (Durcikova & Gray, 2009, p.81); however, Durcikova and Gray state that many such initiatives fail because technology alone cannot capture intangible knowledge and transfer it to the needy areas for eventual application.

Like many authors, Hendriks and Sousa (2012, pp.270-271) argue that organisations’ knowledge systems could provide a sustainable competitive advantage if there is, *“effective and efficient integration of distributed knowledge”*, namely, *“relevant knowledge concerning different subjects is available in different persons across different locations. Knowledge becomes organisational because of its distributed nature”*. This implies that created knowledge cannot easily be distributed if the

medium of distribution is limited to IT, meaning that any repository must contain knowledge that will prove useful for employees looking for answers to their questions and solutions to their problems (Durcikova & Gray, 2009). Therefore, it is to be expected that humans would have to be involved in validating the data so that they can ensure that the quality of knowledge falls to the subject matter experts who could in turn 'filter employee' contributions, rejecting those that are redundant, incorrect, ineffective, outdated, or otherwise unhelpful (Durcikova & Gray, 2009). The need for human involvement in the management of knowledge within an organisation has led to the realisation that a technology-centric model for knowledge cannot fully lead to the adequate management of knowledge (Marjanovic & Freeze, 2012). This implies that knowledge capture, codification and storage could rely heavily on technology; however, there has been a need to recognise the end-user of knowledge (Marjanovic & Freeze, 2012). Therefore, the socially constructed nature of knowledge recognises knowledge intensity, and that it seeks, "*a synergistic combination of data and information-processing capacity of information technologies with the creative and innovative capacity of human beings*" (Marjanovic & Freeze, 2012, p.182).

According to Von-Nordenflycht (2010, p.159), "*knowledge intensity indicates that production of a firm's output relies on a substantial body of complex knowledge*". Even though there is "*a debate as to whether knowledge intensity refers only to knowledge embodied in individuals and or to knowledge embedded in equipment, products, and organizational routines*" (Von-Nordenflycht, 2010, p.159), one could concentrate on evaluating the human side of knowledge intensity because it is a more complex issue that can involve, among other things, intellectual capital and human capital development-related issues that organisations need to deal with if they are to remain competitive (Jimenez-Jimenez & Sanz-Valle, 2013). Therefore, any firm that creates knowledge would require a person-centric approach to the usage of knowledge, as well as address the uses of technology to support the utilisation of knowledge. An organisation would also require an, "*intellectually skilled workforce, not just among its executive or support functions but also among its frontline workers*" (Von-Nordenflycht, 2010, p.159).

The importance of having intellectually skilled workers cannot be over emphasised as far as the knowledge-creation process is concerned. This is because knowledge

creation is continuous in nature, wherein the knowledge that is possessed by these individuals forms the pinnacle of the organisational knowledge base (Krogh, Nonaka & Rechsteiner, 2012), such that it can be linked or shared to form a system of knowledge (Nejatian, Nejati, Zarei & Soltani, 2013). The challenge, however, is that the knowledge-creation process takes place between the interaction of ‘tacit’ knowledge on one side and ‘explicit’ knowledge on the other (Sundaresan & Zhang, 2012) with four organisational factors in the middle, as shown in Figure 3-4. According to Nejatian et al. (2013), knowledge is created when tacit knowledge is converted to explicit knowledge through activities such as socialisation, externalisation, combination, and internalisation, as shown in Figure 3-4.

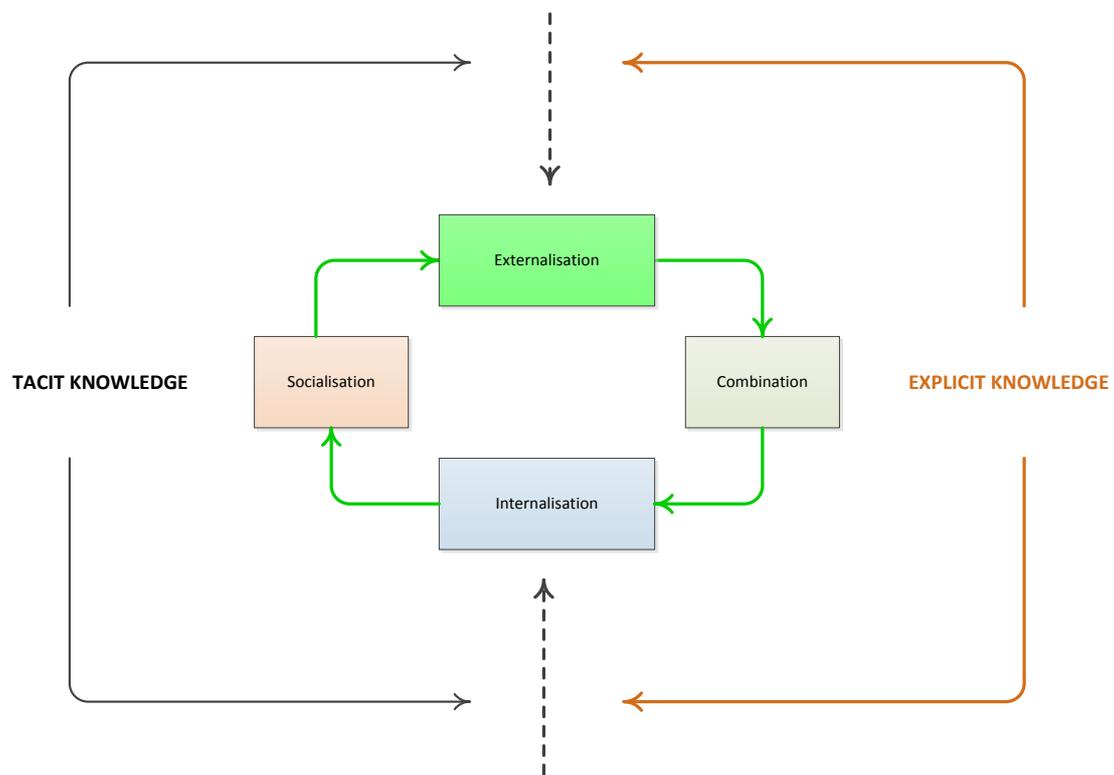


Figure 3-4: Abstraction Of The Knowledge-Creation Process (Adapted: Nejatian et al., 2013, p.107)

Nejatian et al. (2013, p.107) explained that, in any organisation, “*socialisation implies that more share knowledge through more traditional methods like direct person-to-person contacts and foster new tacit knowledge such as shared mental models and technical skills. Externalisation codifies tacit knowledge to intelligible and explicit concepts. Combination converts explicit knowledge into more systematic sets by*

integrating key parts. Internalisation embodies explicit knowledge into tacit knowledge, while explicit knowledge institutionalises to tacit knowledge in people". The cycle of knowledge movement from tacit to explicit and vice versa is of great importance to an organisation because it forms the knowledge system that differentiates organisational competitiveness (Krogh et al., 2012). It is also a key ingredient for organisations aspiring to operate in a knowledge-based economy.

Even though the knowledge-creation process is crucial for organisations, Pässilä et al. (2013) were of the view that people have different forms of knowledge and that their experiences vary from person to person; therefore, diversity in knowledge and experience could be useful in fostering innovation and learning within a company. For example, when an organisation has less experienced workers, it would introduce support mechanisms that could facilitate the introduction of experience in their daily operations. Nejatian et al. (2013) complimented the need for support mechanisms by introducing knowledge management as an enabler in the knowledge-creation process,. Figure 3-5 represents a combination of the knowledge-creation process that is supported with knowledge management enablers, such as organisational culture, employee skills, information technology and the structure of the organisation (Lee & Choi, 2003). This means that the management of knowledge provides the bedrock of the support mechanisms that are aimed at ensuring that the knowledge-creation process integrates with other systems within the organisation. However, knowledge management enablers only become effective if the organisation learns from its dealings and those of the whole economy.

Kamasak and Bulutlar (2010, p.307) defined knowledge creation as, "*a continuous process of learning by acquiring a new context, a new view of the world and new knowledge in overcoming the individual boundaries and constraints imposed by existing information parameters*". They explain that the knowledge creation process therefore requires the initiative to interact and share both explicit and implicit knowledge, and organisations should facilitate this process. However, Jakubik (2011, p.374) argued that the knowledge-creation process has been problematic over the years; it essentially requires an organisation to create a framework that could lead to a process of "*engaging, exploring, experiencing, emerging, enabling and evolving*".

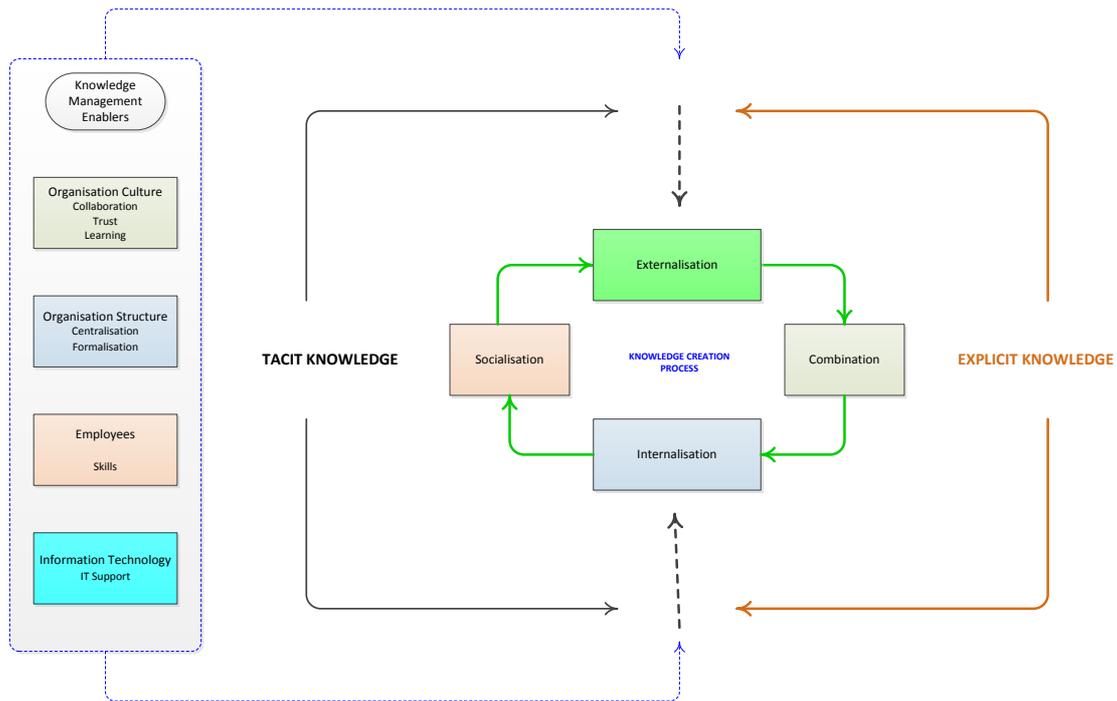


Figure 3-5: Knowledge Management Enablers And The Knowledge Creation Process
 (Adapted: Nejatian et al., 2013, p.108)

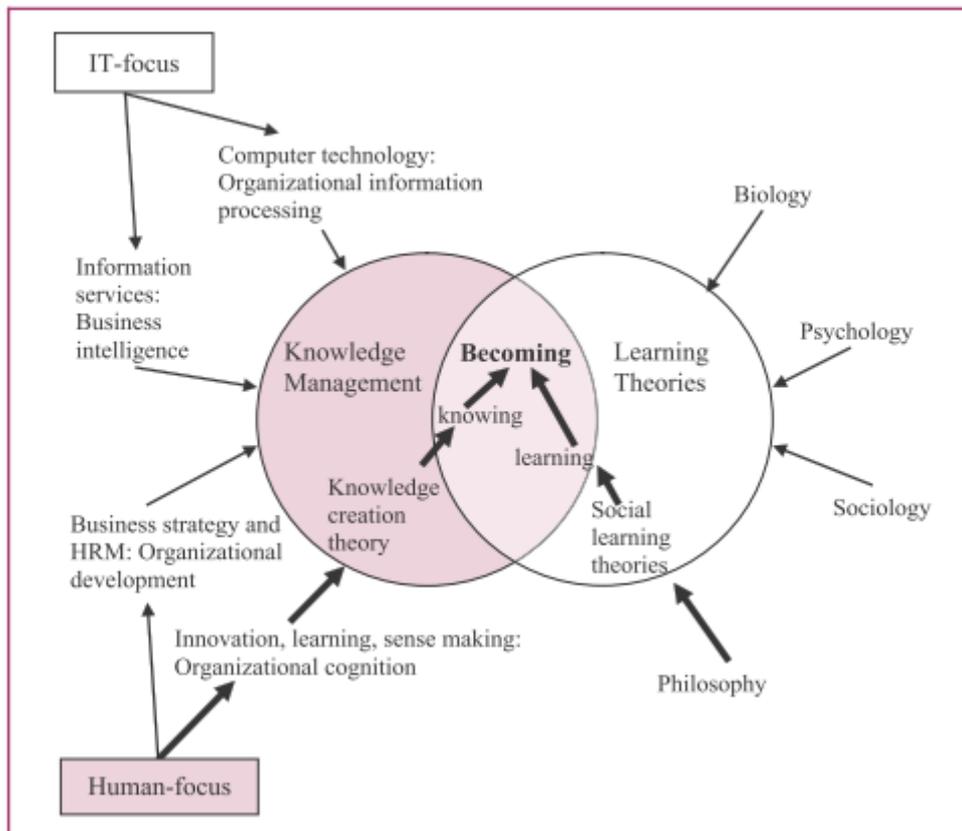


Figure 3-6: Knowing, Learning And Becoming (Source: Jakubik, 2011, p.382)

In Figure 3-6, Jakubik (2011) demonstrated that organisations have to consider many elements if they are to harness knowledge creation. Richtnér and Åhlström (2010) recognised that strategic management is important in establishing a situation where knowledge can be created, and thus lead to innovation. Therefore, the structure of the organisation has an impact on knowledge creation, and assumes that those in top management positions can foster knowledge creation. Akehurst, Rueda-Armengot, López & Marqués, 2011, p.183) explained that there is an, “*explicit ontological support-knowledge creation, characteristics or types of knowledge relationship in different approaches; and enabling understanding of the fact that the ideas one has about knowledge (how it is created or what its characteristics are) come from one’s beliefs about the supports in, or in interaction with, which it is created*”. This implies that the knowledge worker has a significant role to play in the whole arrangement of knowledge creation.

Merx-Chermin and Nijhof (2005) were of the view that knowledge creation can only have a significant impact on innovation if there is a continuous cycle in the process of creating it. If there is any discontinuity, the knowledge can be lost. They explained that a learning organisation would foster knowledge creation and learning, and outlined the following terminologies:

- *Knowledge creation* is the basis of organisational learning; this point is missing in theories of the learning organisation;
- *Organisational learning* is perceived as a metaphor for individual learning; the consequence is that collective learning is not seen from the right perspective;
- *Organisational learning* is seen as an adaptive change process, based on historical experiences and focused on the routines and memory of the organisation; this blocks understanding of knowledge creation; and
- *Double-loop learning* is perceived as a separate instance of learning, and is not integrated into the continuum of knowledge creation, which is based on daily reconstructions of perspectives and frames.

Reid (2014) argued that, in any situation, organisational leaders have a great impact on knowledge creation if they can support the creation and mobilisation processes to ensure that their leadership can influence and foster cultures of trust and risk-taking.

Knowledge influencers are leaders, formal or informal, who have access to knowledge-creating groups at the local and system levels. These leaders influence knowledge mobilisation at different levels. Lloria and Peris-Ortiz (2014, p.1022) argued that knowledge creation constantly requires strategic renewal, meaning that organisational design factors, such as “*liaison position, networked design, innovation teams and work teams*” can affect the creation of new knowledge within organisations. In addition, enablers, such as intention, autonomy, fluctuation and creative chaos, redundancy, variety, and trust and commitment (Lloria & Peris-Ortiz 2014) would interact, hence creating an environment ideal for knowledge creation. However, management has to take a proactive approach to the strategic renewal of knowledge creation (Figure 3-7).

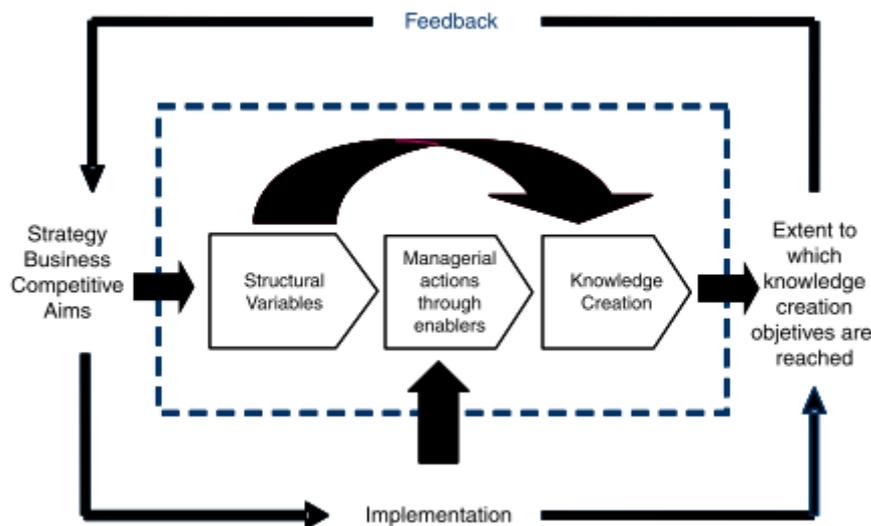


Figure 3-7: Structural Variables, Enablers And Knowledge Creation (Source: Lloria & Peris-Ortiz, 2014, p.1023)

Even though management can institute measures to create knowledge, Jakubik (2008) stated that the knowledge-creation process is centred on highly unstructured human processes of knowledge creation, hence it is necessary has to understand what is being done and why. This shows that the worker has to be central to any knowledge creation. Wang, Su and Yang (2011, p.363) viewed knowledge creation from the organisational cultural perspective when they reasoned that, “*organisational culture comprises a firm’s climate that informally and tacitly defines how the firm develops and uses knowledge, thus it has a significant effect on knowledge creation capability*”.

Their research found that organisational culture plays a critical role in the knowledge creation capability. In particular, collectivism has a positive impact on knowledge creation capabilities, while power distance and uncertainty avoidance have negative effects. This research offers a direct link between organisational culture and knowledge creation, and particularly that organisational culture emanates from the organisation structure. Kao, Wu and Su (2011) explored the ideal mode of knowledge creation that an organisation could use. On one hand, they argued that a firm could use the goal-driven mode, and on the other, a goal-free mode. Their research found that the goal-driven mode is not favourable for knowledge creation (Kao et al., 2011).

3.4 Knowledge Management at an Organisational Level

Central to the application of innovation in a KBE is the way knowledge is managed by the sum total of the organisations that make up an economy (Egbu, 2015; Osman, 2014). This section, therefore, examines knowledge management and its elements at the organisational level, and how it can be implemented in general terms. According to Gavrilova and Andreeva (2012, p.523), knowledge management (KM) has been seen as a significant factor in the running of a venture; however, *“a significant part of knowledge and experience in an organization belongs not to the organization itself, but to the individuals it employs”*. As a result, *“knowledge management (KM) tasks should include eliciting knowledge from knowledgeable individuals”* (Gavrilova & Andreeva 2012, p.523) if it can be created, shared, captured, transferred and exploited for the purpose that an organisation desires (Nonaka & Takeuchi, 1995; Nonaka, Takeuchi & Umemoto, 1996).

Nevertheless, it has been a challenge because there has been a reluctance to propose methods that could, *“extract knowledge (both tacit and explicit) from its employees by bridging KM and knowledge engineering and its accomplishments in the knowledge elicitation field”* (Gavrilova & Andreeva, 2012, p.523). The statement shows that knowledge held by individuals has an impact on organisational knowledge, and that the elicitation of that knowledge requires expert engagement. The question could be does organisational knowledge impact that of the worker? This may happen if the worker learns from the organisation. Therefore, what is an organisation? Is it the people or the structures and systems that are set up by the owners of the organisation?

Defining organisation could therefore have implications for the direction of the impact of knowledge management (Nonaka & Takeuchi, 1995; Nonaka et al., 1996).

Schiuma (2012, p.515) explained that, *“organizations invest their scarce resources only if these investments are capable of enhancing the business value creation capacity; thus managers are interested in managing knowledge not for the sake of knowledge management, but because the planning, design, assessment and revision of the organizational knowledge resources and processes can support the business performance improvements”*. The research found that, *“knowledge represents one of the fundamental constituent parts of any organization and it can be incorporated into people’s abilities or ingrained into structural and technological capital”*, therefore, the, *“management of knowledge is at the core of organization’s business growth”* (Schiuma, 2012, p.515). The study also found that, *“knowledge is a resource that needs management means to support its allocation and development, the frameworks and tools aiming to identify, manage and assess the critical knowledge resources for growth”* and that, *“the translation of knowledge into business outcomes requires management mechanisms, and then considering the knowledge processes grounding the improvement of performance”* (Schiuma 2012, p.515). The critical issue is that knowledge positively drives organisational performance, and that an organisation should invest in knowledge and its management if it is to see a desired business output.

Central to the management of knowledge in an organisation is the framework that could empower workers to learn and be part of the strategy to perform. The transformation of knowledge for practical business needs could lead to the conclusion that workers impact KM. Gao, Li and Nakamori (2002) applied the ‘systems’ way of thinking to KM; it entails the view that elements of knowledge are linked; however, it is necessary to determine in what direction they are linked, and whether this is in the creation or the sharing. The links of the elements for KM are bi-directional; this means that if knowledge is not created, it cannot be shared, transferred or exploited.

Rahe (2009) views KM as a problematic issue for organisations because of the level of subjectivity and cognition it poses. He argued that, *“knowledge management is far from being management of objective truth; the transformation of information and*

signals into knowledge is affected by mind sets and how these mind sets may differ according to individual and cultural parameters” (Rahe, 2009, p.102). He states that, *“this means that any kind of diversity finds its expression in cognitive diversity and finally also in knowledge diversity”* (Rahe, 2009, p.102). The research found that, *“the probability of misunderstanding increases the overlap of individual mind-sets. Even if there are sophisticated technologies which support the management of knowledge, the knowledge product by itself can neither be managed nor effectively be controlled”* (Rahe, 2009, p.102). The key argument is that objectivity in knowledge management is difficult, meaning that the element of individuality or individual behaviour plays a crucial role in managing knowledge at an organisation level. If this is the case, then we could argue that the ‘knowledge’ worker impacts knowledge management, which has a stronger effect than the other way round.

In their research, Gao, Li and Clarke (2008, p.3) demonstrated that KM is about managing the activities of knowledge workers or the transformation and interaction of organisational *“static substance knowledge”* and *“dynamic process knowledge”* for *“products, services, and practical process innovation”*, and, at the same time, *“creating new or justifying existing organizational systematic knowledge”*. However, there are managers who feel that KM is about, *“recording and manipulating explicit knowledge”*; they have to consider implicit factors that could benefit the organisation (Gao et al., 2008, p.3). The application of knowledge management is to practically manage the workers based on their implicit knowledge, and it is possible to argue that workers affect knowledge management. However, it is necessary to establish what else could be impacted within such a holistic view of knowledge. Figure 3-8 demonstrates this.

Lambe (2011) stated that KM can demonstrate practical value for organisations. The practical application of KM is to develop a framework that could address the deficiencies in the KM implementation. Bigliardi, Galati & Petroni (2014) demonstrated how KM could be used in project-based environments. Organisations have shown an increasing interest in knowledge management (KM) because they recognise that an effective use of their knowledge assets and resources may provide the ability to innovate, respond to the customers’ requirements and, to a large extent,

survive (Hanisch, Lindner, Mueller & Wald, 2009). This research confirms the need to focus on the worker as a vehicle to enhance the capability to serve the customer.

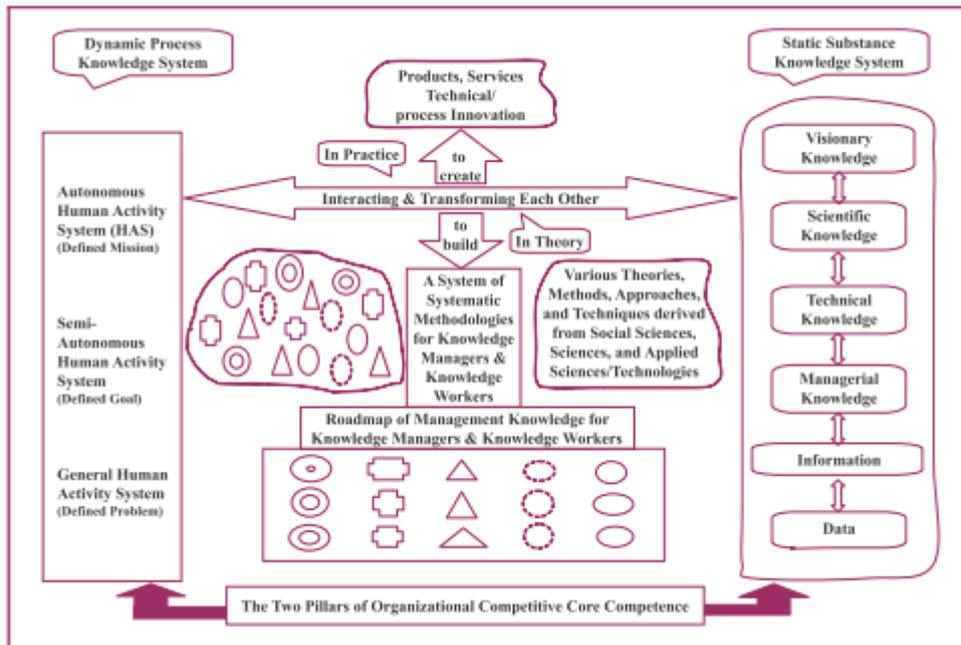


Figure 3-8: A Perspective Of Creative Holism On Organisational Knowledge Management (Source: Gao et al., 2008, p.7)

Therefore, knowledge management is instrumental for industry performance in a knowledge-driven sector. It shows that KM impacts productivity; however, it is important to understand whether the impact could be generalised to the general economy. There has been a general acceptance that knowledge is an elementary form of organisation; a reductionist view of knowledge dominates the discourse. However, Knowledge is not just data and information; it is whatever is inherent in practices and concepts employed and invented to denote such practices (Styhre, 2003). The management of inherent practices and concepts would require an organisation to centre its policy on the resources, such as the ‘worker’. Choo (2000) supported this argument by explaining that there have been major efforts to delineate the elements of KM, such as its tacit, explicit, codified and cultural features. However, the knowledge generated goes beyond the delineation, resulting in more complex scenarios that manifest as indicators of how well KM has been deployed.

3.4.1 Sharing

Cao and Xiang (2012) explained that how an organisation governs its knowledge can impact the knowledge-sharing process. Governance of knowledge refers to the way in which an organisation chooses to deal with knowledge in a formal or informal way. The research demonstrates that the way an organisation is set up (KBO) would be linked to knowledge governance. Lin (2007, p.457) defined knowledge-sharing as a situation where, *“individuals share organisationally relevant experiences and information with one another”*; it is *“neither prescribed nor required in advance for a job”*; however, *“it significantly increases the resources of an organization, and reduces time wasted in trial-and-error”*. Lin (2007, p.57) suggested that, *“the influence of co-worker congruence on knowledge sharing is stronger for individuals with low exchange ideology than for those with high exchange ideology, while the influence of received task interdependence on knowledge sharing is stronger for individuals with high exchange ideology”*. The issue of exchange ideology emanates from the organisation that has learning characteristics; therefore, it can be argued that a learning organisation impacts knowledge sharing even though the impact may not be visible.

Reychav and Weisberg (2010) found that knowledge sharing is highly linked to the intentions that individuals have to share explicit and/or tacit knowledge. Their research found that, *“the intention to share explicit knowledge influences explicit knowledge-sharing behaviour to an equal extent both directly and indirectly. By contrast tacit knowledge-sharing behaviour is influenced directly to a greater extent by the intention to share tacit knowledge and less indirectly by the intention to share explicit knowledge”* (Reychav & Weisberg, 2010, p.285). This means that there has to be an attempt and contribution towards the creation of an organisational database of knowledge to ensure that the, *“most valuable resource which embodies intangible assets and creative processes that are difficult to imitate”* can be shared (Reychav & Weisberg, 2010, p.286).

According to Luu (2014), knowledge sharing could be influenced by factors such as organisational culture, ethics, and emotional intelligence. This research highlights the importance of the cultural elements of an organisation and the people that work in it. This means that the workers and systems of organisations have an impact on

knowledge sharing. The overall purpose of knowledge sharing is to innovate (Kamasak & Bulutlar, 2010, p.306). However, knowledge sharing is not a standard procedure; it can take two forms: (i) through knowledge donating; and (ii) through knowledge collecting. When there is a possibility of achieving simultaneous exploratory and exploitative innovation, the organisation can achieve ambidexterity. Kamasak and Bulutlar's (2010, p.306) research found that, "*knowledge collecting had a significant effect on all types of innovation and ambidexterity, whereas knowledge donating, involving donating inside and outside the group did not have any effect on exploratory innovation*". This shows that if workers are given a chance to explore, their level of innovation could significantly improve their perspective on knowledge. However, if workers donate their knowledge, there is a lower level of innovation, meaning that the culture of knowledge sharing can impact creativity.

Patrick and Dotsika (2007) observed that knowledge sharing can only add value if it is implemented within organisations to support collaboration. The organisation would have to engage with the system users in order to develop a social computing system. The worker would have to be central to the overall system creation that could impact the KBO. Geiger and Schreyögg (2012, p.97) found that narrative-based knowledge-sharing is used as a starting point to explore knowledge-sharing even though it is a much more ambiguous and problematic exercise. Their research found that there is a generative interplay between narrative and argumentative modes of communication in knowledge sharing (Geiger & Schreyögg, 2012). This implies that how an organisation is set up to explore the process of learning has an impact on the knowledge sharing that is achieved because the narrative permeates the organisation.

Zboralski (2009) examined the role of community members' motivation to participate in communities of practice (CoPs) as well as the importance of the community leader and the influence of management support. There is a realisation that organisations that operate in a knowledge-based economy could strategically leverage knowledge as their competitive factor in the local or global market place (Zboralski, 2009). As a result, organisations have relied heavily on creating, "*knowledge management systems in order to use the resource knowledge more effectively and efficiently*" (Zboralski, 2009, p.90); and in particular, they have been, "*integrating existing knowledge, e.g. captured in the expertise of employees, and the generation of new knowledge so that*

the organisations can be successful” (Zboralski, 2009, p.90). As a result, organisations have been creating networks of communities of practice in order to foster and enhance “*learning, knowledge sharing and integration in organisations*” (Zboralski, 2009, p.90). Therefore, organisational learning impacts how communities of learning can practise knowledge sharing. This also implies that what management does to set up and support learning processes can impact knowledge sharing.

Tohidinia and Mosakhani (2010) used the theory of planned behaviour (TPB) to explore the key factors that influence knowledge-sharing behaviour. They discovered that, “*self-efficacy and anticipated reciprocal relationships had a positive impact on attitude toward knowledge sharing, expected extrinsic rewards did not show a significant relationship with this variable*” (Tohidinia & Mosakhani, 2010, p.611). In addition, they found that the ‘organisational climate’ had a positive impact on subjective norms about knowledge sharing and that the level of information and communication technology usage reflected a positive effect on knowledge sharing behaviour. McDermott and O’Dell (2001) argued that culture is seen as the key inhibitor to effective knowledge sharing. However, the organisation should attempt to link sharing knowledge, “*to solving business problems; tying sharing knowledge to a pre-existing core value; introducing knowledge management in a way that matches the organisation’s style; building on existing networks of people use in their daily work and; encouraging peers and supervisors to exert pressure share*” (McDermott & O’Dell, 2001, p.76).

According to Hurmelinna-Laukkanen (2011), a learning organisation should have mechanisms at its disposal to establish strong protection so as to ensure that sharing knowledge with varying partners is more likely, which, in turn, can improve the innovation performance of the firm. Wendling, Oliveira, Carlos and Maçada, (2013) opined that, in global terms, knowledge sharing is stifled by four major factors: technology, professional skills, cost, and methodology of software development. Other factors included “*the relationship between the barriers, for example, cultural differences are negatively related to absorptive capacity; and, the barriers could also be enablers for knowledge sharing*” (Wendling et al., 2013, p.239). These issues concern how learning relates to the organisation and whether the learning is induced by the organisation’s learning environment.

Liao, To and Hsu (2013, p.891) argued that four major forces drive the motivation for knowledge sharing: “*utilitarian motivation, hedonic motivation, control belief (self-efficacy) and contextual force (sharing culture), motivate users’ attitudes toward knowledge sharing*”. If the organisation can harness these forces, knowledge can be shared more easily in person or in the virtual working environment. However, does this mean that sharing is related to technological infrastructure and the like, and could this be linked to the perception that knowledge is biased towards objectivity? Higgins, Taylor, Lisboa and Arshad (2014) argued that, for an organisation to guarantee knowledge sharing to a minimum level, it has to establish a framework through which knowledge can be shared. Such a framework could comprise data-sharing agreements, security arrangements and high levels of compliance with data protection.

3.4.2 Capture

Matsumoto, Stapleton, Glass and Thorpe (2005) argued that, for an organisation to be competitive it has to manage knowledge by ensuring that it has the ability to identify and capture it. They explained that traditionally, “*knowledge was transferred from one generation of engineers to the next over a period of time*” (Matsumoto et al., 2005, p.83); over the years, traditional approaches to capturing knowledge have become ineffective at best. Janson and McQueen (2007) argued that, to capture leadership’s tacit knowledge, they would have to understand the organisation’s life cycle and be able to understand the processes for learning, communication and networking. This implies that organisation structure influences the knowledge capture processes. Jackson (2010) supported the view that the process of capturing knowledge at the organisational level is an ongoing cycle requiring the integration of organising, sharing and maintenance. There is an economic impact caused by knowledge loss and knowledge sharing, and as a result, there is a need for explicit management of the process of knowledge capture. Therefore, organisations have an influence on how well knowledge can be captured (Figure 3-9).

According to Shokri-Ghasabeh and Chileshe (2013, p.108), the main three barriers of knowledge capture are “*lack of employee time*”, “*lack of resources*” and “*lack of clear guidelines*”. They discovered that capturing knowledge does not necessarily depend

on a lack of management support (Shokri-Ghasabeh & Chileshe, 2013). In order to capture knowledge effectively, it is vital that organisations consider a shared sense of purpose and institute an iterative process where owners of tacit knowledge are engaged so that their knowledge can be captured (Mulder & Whiteley, 2007). This implies that tacit knowledge need not be presumed to be haphazard but rather a factor to be captured through deliberate moves.

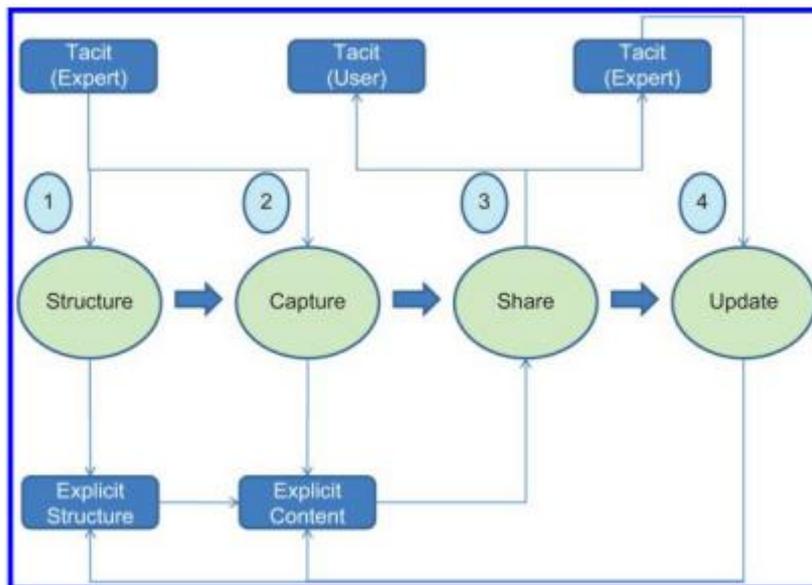


Figure 3-9: Tacit to Explicit Conversion With A Knowledge Lifecycle (Source: Jackson, 2010, p.912)

Many organisations have developed interactive system designs and frameworks to capture business knowledge and practices (McKelvie, Dotsika & Patrick, 2007). In so doing, firms would have to demonstrate the importance of capturing knowledge. For instance, McKelvie et al. (2007) believed that an interactive tool which could capture knowledge at the time of meetings or brainstorming sessions could be useful in retaining such knowledge; this could then be used in future decisions because sharing stored information is made possible by using such a tool. Therefore, it could be argued that McKelvie et al. (2007) concentrated on developing a technology-centric initiative to capture knowledge. Such a move could be efficient and applicable to organisations that could permit the use of such tools; other organisations may not find such an approach useful.

Despite the challenges associated with the establishment of a knowledge-capturing mechanism, there has been an increase in the efficiency with which firms are capturing knowledge through the use of enterprise portals (Fenz, 2012). In addition, Fenz (2012) argued that it is crucial to ensure that an organisation has structures that can enhance the capture of knowledge.

3.4.3 Transfer

By definition, knowledge transfer is considered to mean “*the process by which units of an organisation are affected by the experience of another unit*” (Wilkesmann, Fischer & Wilkesmann, 2009, p.465). Whichever model an organisation uses, Fischer and Wilkesmann state that knowledge transfer is seen as a communication model through which knowledge is transferred either at intra-organisational, inter-organisational levels, individual and/or group levels.

According to Jones (2007), knowledge transfer and its management is largely dependent on individuals and the organisational systems that could allow transfers to take place. There is a general realisation that knowledge is power, and whoever has knowledge could hold performance advantages for as long as they use the knowledge effectively. Five important steps are necessary for an organisation to effectively transfer knowledge; these are (i) the creation of a culture of knowledge sharing; (ii) the ability to develop skills; (iii) appraising the status quo as often as possible; (iv) managing any succession plan in the event that there is worker turnover; and (v) ensuring that, when there is turnover, an organisation can conduct exit interviews to learn from the worker leaving the organisation (Jones, 2007).

Throughout the knowledge-transfer process, there is an overreliance on the use of technology as a means of transferring knowledge (Landry & Amara, 2012). Essentially, the organisation could facilitate technology challenges but organisational arrangements are needed to deal with the tacit knowledge transfer mechanisms. These are fluid in nature. Emphasis on technology as a way of transferring knowledge offers a very limited angle for analysis and/or to evaluate what is being transferred (Landry & Amara, 2012). According to Ho (2014), the implementation of knowledge transfer is complex, mainly because it has to take a multilateral approach and if the transfer is

not embedded in organisational operations, it could be ineffective due to the complexity of its associated variables. There is an expectation that, apart from the vertical and horizontal layers of an organisation, there is an anticipation that the knowledge-creating sub-elements of a firm could have an impact on the transfer process (Ho, 2014). Therefore, there is an argument that a transfer looks at the structures of the organisation, not the people involved. In other words, it is the physical infrastructure of the organisation that many would consider as vital for knowledge transfer, but it should consider more than this if the economy has to become knowledge-based.

According to Sié and Yakhlef (2009) there is a significant human influence on the level of knowledge transfer, as far as ‘knowledge’ workers or ‘expertise’ is concerned. They argued that passion for knowledge can have a positive influence on its transfer, meaning that, as an expert acquires knowledge, they could engage in a simultaneous transfer of that knowledge. Sié and Yakhlef (2009, p.176) explain that there is a set of factors that impact knowledge stickiness or the difficult of transferring it, and some of these factors are, “*the nature of knowledge itself, the characteristics of cognising units (source and recipient), the social relationship between them and the organisational context*”. Therefore, the transfer of knowledge is equally impacted by the absorptive capacity of the recipient unit (Sié & Yakhlef, 2009). If, for instance, the recipient unit has prior knowledge and their experience is poor, their ability to absorb, learn and transfer knowledge could be limited.

Another fundamental issue is how individuals internalise new knowledge due to their prior knowledge and how a diverse experience amongst the workforce could act as a positive force to promote knowledge transfer (Sié & Yakhlef, 2009). This implies that one has to look at the socio-cultural interrelationships as well as the structure of the organisation if they are to effectively engage in knowledge transfer. Some workers could be motivated by intrinsic motives while others may be motivated by extrinsic motives as they promote or frustrate efforts linked to knowledge transfer (Sié & Yakhlef, 2009). Thus, there is a strong argument that, “*individuals are less likely to transfer and share knowledge if they are not rewarded for that behaviour*”, which is supported by, “*extrinsic motives (such as monetary rewards), which is at the heart of economic theory*” (Sié & Yakhlef, 2009, p.177). Therefore, extrinsic factors include,

but are not limited to, “*recognition, increased responsibility, advancement, better supervisory relations, better peer relations, increased pay, or job security*” (Sié & Yakhlef, 2009, p.177). Intrinsic factors include, but are not limited to, “*lower transaction costs and [fostering] trust and social capital*” as well as the motivation of “*undertaking an activity for the immediate satisfaction of one’s need*” (Sié & Yakhlef, 2009, p.177). Wilkesmann et al. (2009) illustrated the issue of social, cultural, motivational and organisational factors in knowledge transfer by using a model, shown in Figure 3-10, whereby the level of transfer has been physically presented at the intra-organisational as well as the inter-organisational levels.

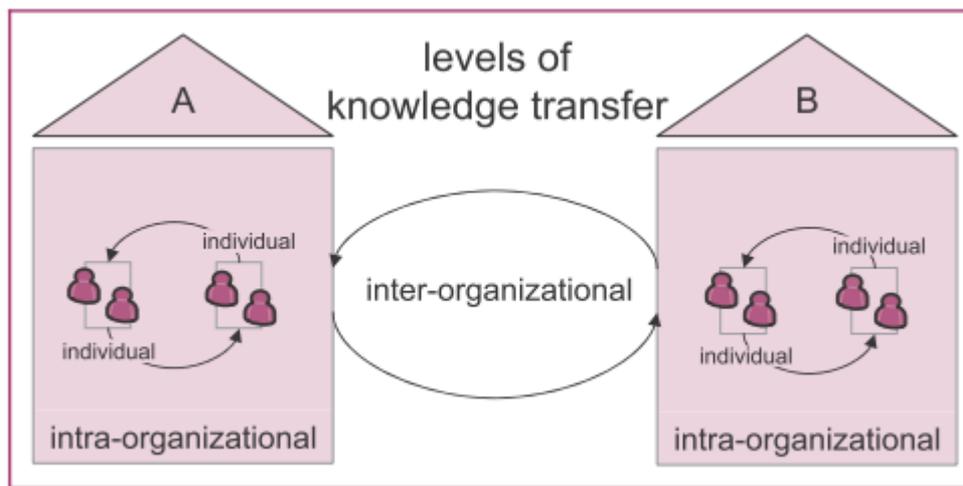


Figure 3-10: Levels Of Knowledge Transfer At Organisational Level (Source: Wilkesmann et al., 2009, p.465)

Wilkesmann et al. (2009, p.464) discovered that the implementation of knowledge transfer is dictated by the attributes of the national culture, which are, “*power distance, performance orientation, in-group collectivism, and uncertainty avoidance*”. They quoted many examples of national attributes, as developed by the Hofstede models of national identity (Wilkesmann et al., 2009). Their findings means that, how nationals view knowledge can be reflected at organisational and/or inter-organisational levels and Qatar is no different from the nations featuring in the research.

However, in a work environment like Qatar, which heavily relies on a migrant workforce, there is a great possibility that workers may have a dissimilar culture.

According to Boh, Nguyen and Xu (2013, p.29), organisations with individuals of dissimilar cultures face difficulties in transferring knowledge, especially when the source and recipient do not “*share common beliefs, assumptions and cultural norms*”. This is because factors such as “*trust, cultural alignment, and openness to diversity influence the effectiveness of knowledge transfer*”. Boh et al. (2013) further explain that, whether organisational or national, differences in collective beliefs and values that are widely shared amongst individuals have a powerful influence on how open individuals can be about knowledge and its transfer. Therefore, an organisation would have to re-align its culture at an organisational level if it is to influence the positive outcome from knowledge transfer.

One could therefore argue that, at the organisational level, every company has to institute measures by which knowledge can be transferred. According to Fang, Yang and Hsu (2013), it is important for an organisation to create a knowledge-governance structure (framework) that could be used to reduce possible barriers to the transfer of knowledge. Such a framework would address “*knowledge characteristics, barriers of knowledge transfer, and effective knowledge transfer in inter-organisational contexts*” (Fang et al., 2013, p.943). It could also influence the networks necessary for an organisation to improve its knowledge transfer strategies (Fang et al., 2013). A framework does not only act as a governance procedure but also as a way of ensuring that the processes for transferring tacit knowledge can be separated from those used in transferring explicit knowledge (Jones & Mahon, 2012). There are no restrictions as to what the framework could be made of.

However, McBeath and Ball (2012, p.213) believe that it tends to be technology-centric if the knowledge required is highly technical. They also believed that there are, “*five key themes required for successful knowledge transfer, these are: willingness to share information, willingness to receive information, explicit knowledge transfer, tacit knowledge transfer and verification*” (McBeath & Ball 2012, p.213). Their reasoning was fully supported by Liyanage, Elhag, Ballal and Li (2009, p.118) who argued that, “*knowledge transfer, per se, is not a mere transfer of knowledge. It involves different stages of knowledge transformation. Depending on the context of knowledge transfer, it can also be influenced by many factors; some positive and some negative*”. As much as transfer of knowledge can be designed, there

has to be a detailed assessment of how systems could be impacted by the internal, as well as the external, factors of the organisation or the industry (Miao, Choe & Song, 2011), otherwise there could be difficulties auctioning knowledge transfer (Riege, 2007).

3.5 The Creative Society as an Ingredient for a Knowledge-Based Economy

Creativity in a society largely depends on how well that society handles inter-industry job mobility as well as the knowledge that emanates from the highly skilled workforce (Kirsi & Timo, 2013). Kirsi and Timo (2013, p.918) argued that skilled workers are essential to any KBE because they can be useful for transferring knowledge across industries; however, *“young workers are the most mobile, whereas mobility decreases for those with previous work experience, higher education and higher income level”*. This could lead to the argument that a knowledge city has an impact on creativity because of the way workers can impact the transfer of knowledge.

According to Niu, Xie and Leonard (2010), it is very difficult for one to examine the impact that a knowledge base has on innovation and/or creativity within an economy due to the fact that a knowledge base is difficult to measure; nevertheless, many scholars rely on technology, organisation and territory as the three major issues that influence creativity. A knowledge base has a significant influence on creativity, as is evidenced by the increase in the number of patents; however, technology and the organisational types within a region are also vital issues that affect creativity (Niu et al., 2010). Therefore, organisations and knowledge bases impact creativity. If creativity is considered necessary within economic systems, then, *“the term “global knowledge economy” fails to acknowledge the uneven distribution of knowledge-based economic activity”* (Roberts, 2009, p.285), wherein such creativity would be needed. Therefore, *“the idea of a global knowledge economy, which focuses on knowledge as conceptualised in the commercial activities of advanced countries, overlooks the diversity of knowledge present in the world today”* (Roberts, 2009, p.285). It is thus possible to argue that the diversity in the way a knowledge-based economy has been set up would impact creativity.

Ahmed and Al-Roubaie (2013) demonstrated that the Muslim world has been seeking innovation and technological learning in order to build knowledge-based economies. They discovered that, *“despite abundant financial and human capital, most Muslim countries still lack adequate scientific and technological infrastructure to absorb, apply and create knowledge and disseminate information”* (Ahmed & Al-Roubaie, 2013, p76). This means that the city or the economic infrastructure of cities must absorb skilled workers so that they can thrive as they become creative (Davidson, 2014).

3.6 Knowledge City to Facilitate Knowledge-based Economy

According to Ergazakis, Metaxiotis, Psarras, & Askounis (2006), a knowledge city, *“is a city that aims at a knowledge base development, by continuously encouraging the knowledge management processes. This can be achieved through the continuous interaction between its knowledge agents themselves and at the same time between them and other cities’ knowledge agent. The cities appropriate design, ICT networks and infrastructure support these intersections”*. Structuring an economy through knowledge cities has been considered essential for instituting economic activities that enhance the status of a KBE. Take, for example, a city like Hong Kong, with economic structures that could facilitate the status of a KBE, as examined below.

3.6.1 Hong Kong and United Arab Emirates (UAE)

Ka-Lun (2012) assessed how the city of Hong Kong has been diversifying its economic structure to enhance its reputation as a knowledge-based city. The research found that, for Hong Kong to maintain and enhance the robustness of its knowledge-based economy, it had to realign its horizontal structure with a good command of the globalised knowledge economy as well as the continuation of the free market structure (Ka-Lun, 2012). The city also had to have a lightweight facilitation of high-value added economic activities (Ka-Lun, 2012), the economic structure of the city, as well as how it responds to the global influence. Therefore, a knowledge city is a result of a city’s response to the KBE. Therefore, KBE impacts knowledge cities, which in

turn affect the distribution of knowledge and actions that could lead to any restructuring.

Ahmed and Alfaki (2013) tested the application of the knowledge economy using the United Arab Emirates. Their research concentrated on the application of science, technology and innovation as factors impacting a knowledge economy. However, they discovered that the UAE, *“has made important progress in the implementation of the KE pillars and transitioning to the innovation-driven stage, particularly at the macro-economic environment and quality of infrastructure levels, notably the ICT sector”* (Ahmed & Alfaki 2013, p.84). However, transforming these economies into fully functional KBEs has been hampered by a lack of investment in education and research. From its investment in infrastructure, the UAE has cities that have high-quality facilities but they are impacted by a lack of investment in people, either through training and education or continued research. It could therefore be argued that investment in workers (education and the like) impacts the knowledge city and its way of working, as was the case with the UAE.

3.7 Knowledge-Based Organisation

Jennings and Wargnier (2010, p.14) believed that a knowledge-based organisation (KBO) is one that strives to develop ‘agile’ minds through experiential learning – *“a hands-on, personalised practice with live internet-based systems and scenario-based virtual learning environments”*. They argued that for learning to take place, there has to be a combination of *“four basic elements: the experiences; the opportunity to practise and embed those experiences in our long term memory; the conversations and interaction we have with others, and reflection”* (Jennings & Wargnier, 2010, p.14). A knowledge-based organisation is one that could embed the four elements of experiential learning, meaning that what the organisation implements has an impact on organisational learning. It can also be argued that organisational learning has a reciprocal impact on the KBO. In other words, a knowledge-based organisation operates by ensuring that it can manage knowledge (Stonehouse & Pemberton, 1999). They argued that individual and organisational knowledge must be linked if an organisation is to manage knowledge-based competencies (Stonehouse & Pemberton, 1999).

Establishing knowledge-based organisational competencies requires recognition of the organisation and the individual competencies of the worker. Similarly, without the competencies of the worker, there can be poor implementation of the KBO. Rowley (2000) argued that, for an organisation to use knowledge as an entrepreneurial tool, it needs to deploy various learning processes. This implies that a learning organisation turns into a knowledge-based organisation, and that a learning organisation relies heavily on workers who would in turn develop from ordinary to knowledge workers. Chandra and Kumar (2003) amplified the issue of an organisational knowledge base in a production system as a influence on effectiveness and efficiency. They argued that a knowledge-based organisation does not only need expertise but also the classification and codification of processes so as to keep knowledge within the organisation (Chandra & Kumar, 2003). Chandra and Kumar state that, learning, in the context of classification, implies discovering new attributes, the bases for grouping and the need to update knowledge bases. Thus, a formal knowledge base makes a firm's knowledge cumulative and serves as an important integrating and coordinating role for the organisation (Chandra & Kumar, 2003). There is a direct link between the knowledge base and knowledge management, and both have an impact on each other. The challenge for the knowledge-based organisation is to model and keep knowledge in its tacit form –the opposite of what many organisations do (Meisel & Compantangelo, 2004). Therefore, KBOs impact the way knowledge is retained.

3.8 Summary: The Pivotal Role of the Knowledge Worker

The role of a knowledge worker, according to Davidson (2014), is to work as flexibly as possible using their high level of expertise. Knowledge workers are central to the knowledge-based economy (Paton, 2012) because s/he has to provide a body of knowledge to implement various tasks in the work environment; therefore, organisations have to design their operations to maximise their human resources. According to Paton (2012, p.21), the main attributes of knowledge workers are their *“possession of a variety of types of knowledge such as embodied and explicit and tacit and their ability to apply this knowledge in the process of work to identify and solve complex workplace problems”*.

The main link between Chapter Three, which has focused on KBEs and the learning organisation, and Chapter Four is the theory of human development. According to Tomé (2011), human resource development is essential for the development of knowledge-based workers in any organisation, meaning that decisions about productivity that are centred on the development of the workforce are vital. This is because an organisation has to create a system of profound knowledge, central to which is the reliance on knowledge workers (Gapp, 2002). This implies that knowledge workers are central to the whole concept of knowledge-based organisations where tacit, explicit and cultural knowledge can be used for the benefit of the organisation (Choo, 2000). An exploration of the issues affecting the knowledge worker in Qatar examines how the nation could tap the talent in its own people. Therefore, it is important to review the issues of knowledge workers from the perspective of how organisations plan the process of learning, as will be examined in Chapter Four.

4 CHAPTER FOUR: LEARNING AND ITS IMPACT ON DRIVING KNOWLEDGE AT AN ORGANISATIONAL LEVEL

4.1 Introduction

Whether planned or otherwise, people within organisations tend to continue learning and developing their knowledge; however, organisations should prepare themselves to harness these learning processes to ensure that such knowledge can be retained, shared, and used to enhance their competitiveness (Gieskes, Hyland & Magnusson, 2002). By definition, organisational learning is a deliberate strategy for an organisation to ensure that it can establish the means by which knowledge can be shared or transmitted through workers' dialogue, experiments or by learning from each other (Gieskes et al., 2002). Huzzard (2004) opined that many organisations only aim to learn if they are maintaining or upholding the pattern of activities that they have already identified as fundamental to their business; learning anything else is ignored. Therefore, it is necessary to examine the principles of organisational learning because it would otherwise be difficult to fulfil the objective of this research. This chapter is structured as follows:

- Organisational learning impacts knowledge management
- The known factors essential to organisational learning
- Lave and Wenger's theory of organisational learning
- Deficiencies with the approach to organisational learning
- Organisational learning schools of thought
- The signs of knowledge from organisational learning
- The role of leadership in establishing organisational learning
- The implementation of organisational learning
- Matching and improving competencies
- Summary

4.2 Organisational Learning Impacts Knowledge Management

According to Zhao, Lu and Wang (2013), organisational learning requires a dynamic way of adopting a system where there can be a process of learning, unlearning, and relearning in order to adapt the operations to the demands of the business environment. Unless the dynamism of learning, unlearning, and relearning can be mastered, organisations could struggle to manage the knowledge at their disposal (Zhao et al., 2013). There could be insignificant reciprocity in the way organisational learning and/or unlearning impacts the dynamism related to knowledge management (Figure 4-1). This implies that organisational learning and unlearning affects the quality of knowledge management.

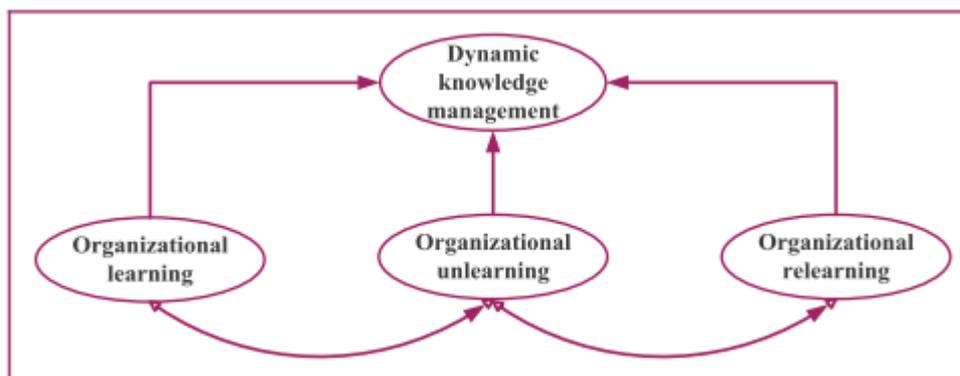


Figure 4-1: Process Dynamics of Knowledge Management (Source: Zhao et al., 2013, p.905)

Rechberg and Syed (2014) reviewed the level of participation of individuals in the discourse concerning the KM application in organisations. They discovered that an appropriation of the individual in KM serves neither employees nor organisations, and that individual employees are meant to be valued participants in the development and management of knowledge. This means that mere participation is not enough; rather, a deliberate policy to actively involve workers is vital. There is an emphasis on tapping individual knowledge for improved organisational performance; however, such an approach has been found to be weak. The main thrust for the optimisation of KM is where the employee is valued. However, it is important to understand how KM impacts the value of the knowledge worker. Organisational learning could be seen as

a vehicle for impacting the appropriation and value enhancement of the worker; hence organisational learning impacts knowledge creation (Figure 4-2).

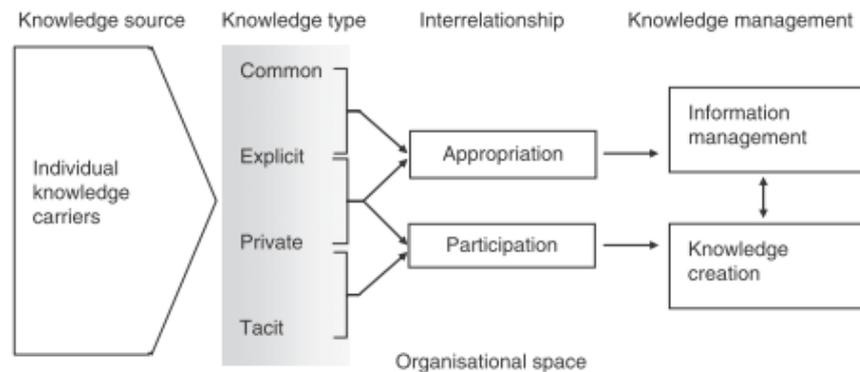


Figure 4-2: Appropriation Vs Participation of Individuals In Knowledge Management (Source: Rechberg & Syed, 2014, p.438)

Massingham and Massingham (2014) evaluated the practical application of KM on organisational constraints. Their fundamental argument was that organisational learning and KM had to be tested with regard to how it could be applied to resolve practical problems that may or may not have directly linked financial results. They discovered that the application of KM for organisational problems was real for both financial and non-financial factors. Factors, such as strategic alignment, value management, and psychological contracts were least developed in organisations yet they gave direction to businesses (Massingham & Massingham, 2014). The implication of this research for organisations is that, if the importance of learning and KM is underrated, a business would be negatively affected.

Many Western countries, especially in the European Union, have been encouraging their organisations to adopt learning strategies to create a KBE, the knowledge base of which emanates from the experiences organisations have gained over the years (Nyhan, Cressey, Tomassini, Kelleher & Poell, 2004). The natural way of working, according to Huzzard (2004), has been to teach people the routine to perform their duties; they then master the routines and can optimise their performance as a result. However, the challenge is that once people operate on a routine basis, they do no longer see the sense in what they are doing. The power for them to then identify non-

routine practices diminishes, creating a working environment where learning is minimal (Huzzard, 2004).

This does not imply that routine activities are all synonymous with a lack of learning opportunities in an organisation; rather that the crucial factor is that organisations must strike the right balance between routine and non-routine activities in order to allow the workforce to learn so as to produce innovative options as well as experimental tasks aimed at improving operations (Huzzard, 2004). For instance, within the construction industry, organisations have to balance resource allocation with the activities necessary to produce; as such, routines are extremely important because they are useful for an organisation to perform (Le & Bronn, 2007); however, it would be better for an organisation to learn from its own work in order to perform optimally. This means that organisations must use routine systems as well as learn from them in order to transfer some of their skills to other operations, either now or in the future – in essence, to learn and create knowledge as they work (Le & Bronn, 2007).

One of the greatest challenges to organisational learning in firms is when strategic managers do not realise that traditional boundaries in the organisation have to be blurred with those of strategic boundaries so that workers can see the necessity for personal learning and its impact on the commercial survival of the organisation (Tennant & Fernie, 2013). The business environment could have its own unique constraints that could inhibit organisational learning; however, the realisation that organisational learning is centred on human development is the starting point (Tennant & Fernie, 2013). This implies that investment in management systems is as important as investment in human development so that people can be useful to such processes. As identified in the research problem section (1.3), the Qatari economy has been facing issues in recent years in that there has been a trend whereby investment in management systems, such as IT and the like, is extremely good but there is a notable reluctance among local Qataris to drive the economy towards a knowledge-based system (Mednicoff, 2012).

4.3 The Known Factors Essential for Organisational Learning

The benefits of organisational learning largely depend on how well a company is strategically arranged, and this could either be in a formal or informal way (Jones, 2008; Le & Bronn, 2007). If the organisation has formal lines of learning, it could mean that the cultural and social networks in the learning process may be visible (Le & Bronn, 2007); otherwise, if they have an informal approach, it could be difficult to assess this in terms of performance. According to Nyhan et al. (2004) there are four main factors that are fundamental to organisational learning:

- (i) Organisations need to ensure that there is integration of informal social networks with formal structural networks between individuals in order to allow knowledge to permeate the organisation at every level. For instance, those working at the pinnacle of the organisation should not only institute measures to learn but also provide an enabling environment that could allow for structural as well as informational interaction between people (Nyhan et al., 2004).
- (ii) Human development needs to be central to the efforts associated with organisational learning because if humans are not being developed, learning becomes impossible (Nyhan et al., 2004).
- (iii) There is a need for guidelines and support for learning at the organisational level so that each individual can be given an opportunity to fit their own personal development with that of the organisation.
- (iv) Each organisation in the industry must contain a varied level of training, specialisation, and experience. This variety needs to be tapped so as to create an interdisciplinary approach to learning whereby workers can interact at various levels as they learn and develop their skills. Nyhan et al. (2004) argues that the organisation needs to take a lead in ensuring that there is an interdisciplinary approach to the promotion of learning.

4.4 Lave and Wenger's Theory of Organisational Learning in Project Environments

The typical project environment in the built environment is comprised of a stream of projects from which individuals can learn, depicted as project 1 to project 'n' in Figure 4-3. Generally, workers can pick up knowledge that can be stratified as

technical, cultural, systems, customers and the like. This means that the lessons related to the culture of the business environment and the way customers are treated, as well as the technical element of the business, could be learnt from project to project (Szymczak & Walker, 2003). The learning obtainable from projects may not be adequate to immediately classify an organisation as a learning one – other factors are necessary to attain this level. Szymczak and Walker (2003) developed a model, shown in Figure 4-3, where the main motivation for learning goes beyond the immediate project environment. There are a range of factors that include: the reward system; intellectual safety; intellectual support; enterprise and wiliness to commit; time; ICT and administrative support systems; thinking and reflecting; leadership and strategic support; thirst for knowledge, and work place support (Szymczak & Walker, 2003).

For change to be instituted in a project environment, lessons from projects are only used as day-to-day sources of data necessary for individuals' development as they perform their economic duties within the organisation and the economy at large. Huzzard (2004) stated that, if change is to be instituted in the organisation, players have to oscillate between the technical routines that they are used to and more experimental or innovative actions that they would have to undertake in order to keep improving. In other words, routines are there because someone may have researched them and proven that they work; however, innovation must continue so that organisations can keep learning (Huzzard, 2004).

The technical as well as non-technical factors in the learning process were considered vital to the overall organisational politics and power that need management (Huzzard, 2004). This is what led Lave and Wenger to theorise that learning was contextually dependent, social, and embedded in particular practices (Huzzard, 2004). This implies that, if learning ignores the context, social and/or cultural elements of the working environment, it could not function optimally. Even though Lave and Wenger theorised the contextual entanglement of learning, the way people operate at an organisational level is driven by power and politics, creating islands of informal or formal structures, which make the implementation of learning dependent on how well an organisation deals with these elements (Huzzard, 2004). This implies that operational islands, whether formal or informal, are crucial for the establishment of

communities of practice that people can use to learn in the workplace (Huzzard, 2004).

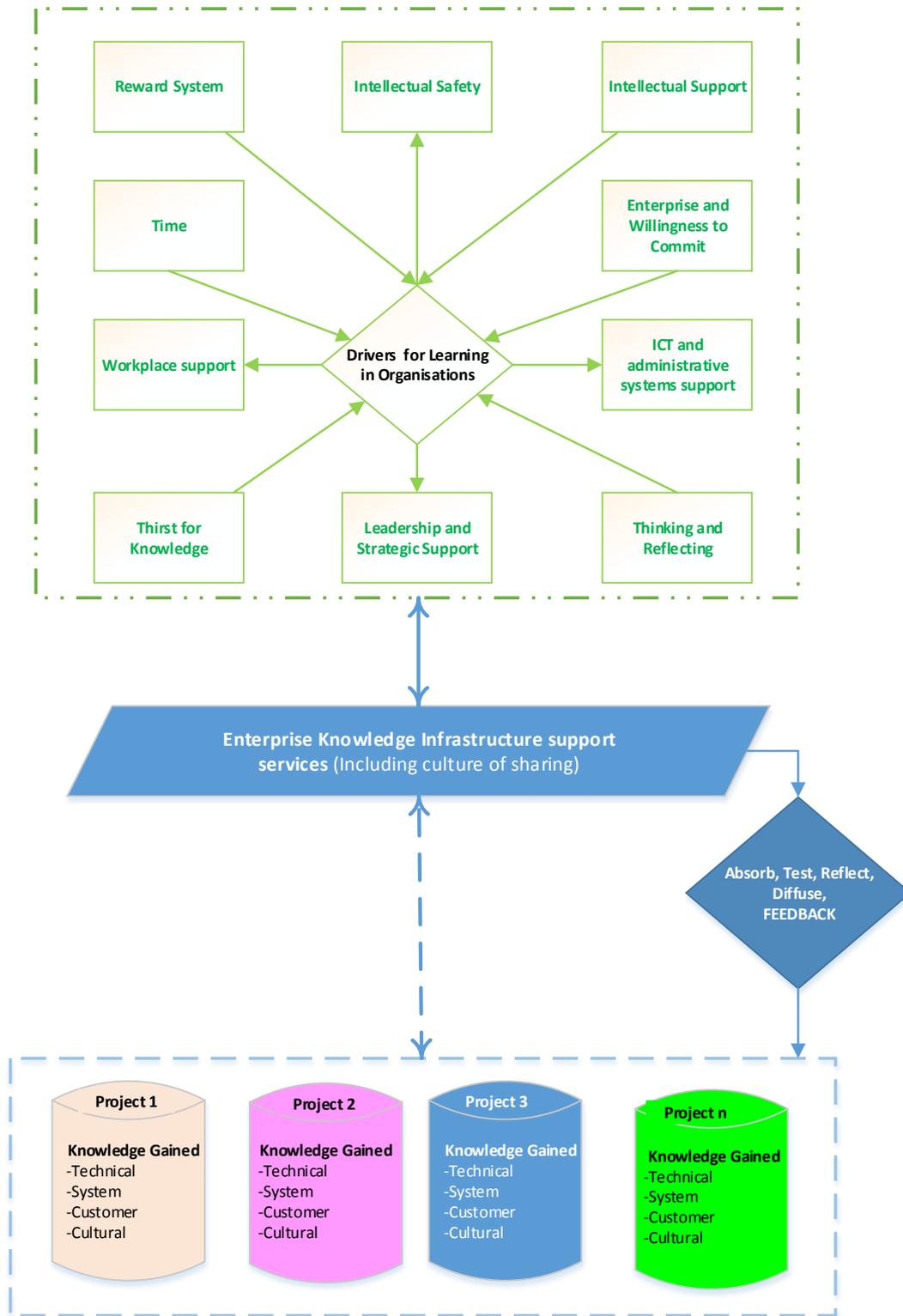


Figure 4-3: Instituting Change Through Project Learning At An Organisational Level (Adapted: Szymczak & Walker, 2003, p.131).

It is thus possible to argue that Qatari industries would have to consider contextual, social, and cultural factors in the setting up communities of practice for learning failures, which could make it difficult to mediate the process of learning. Huzzard (2004) suggested that, throughout the world, socially mediated issues could be difficult to deal with if there is no recognition of the open-ended nature of the communication dynamism that people could be involved in. In this case, the recognition of Lave and Wenger's theory of learning implies that the social, cultural, and political environment for organisations that make up the Qatari economy becomes important. The main challenge for the implementation of organisational learning in a socially and culturally sensitive environment, such as Qatar, is the establishment of a strategy that could recognise the organisational hierarchy, the cultural norms, and the religious beliefs that promote respect and distance between strategic decision makers and those operating on the shop floor (Hofstede, 2003; 2003a).

4.5 Organisational Learning Schools of Thought

The implementation of learning within organisations largely depends on the way an organisation perceives itself as an entity within an economy, and how it might deploy its own strategy while considering the various elements of the business environment and the regional cultural and social values. Some managers within organisations would look at organisational learning from the 'economic perspective'; others would think of it from the 'management perspective', the 'development perspective', and/or the 'process perspective' (Tennant & Fernie, 2013). Each approach has its own way of understanding organisational learning. Although Tennant and Fernie (2013) expanded the four disparate schools of thought that organisational learning could take, Figure 4-4 shows that these schools of thought can be combined to achieve a similar goal.

(i) The Economic Perspective of Organisational Learning

The economic perspective of organisational learning is not necessarily driven by economic theories, such as supply and demand. Instead, it takes the belief that there can be a logical way to develop organisational learning by discovery, and by repeated actions of that which has been discovered, create a perfect situation whereby the whole business can learn through the community of practice

(Tennant & Fernie, 2013). Therefore, with repeated actions, it is possible to learn from organisational learning and perfect the process until the learner's cognitive development is detectable (Tennant & Fernie, 2013). This perspective of learning is both formal and necessary because management must institute such measures if they are to introduce the knowledge-management practices needed for an organisation to learn (Wiig, 1995). The only side-effect is that not all learning can take place in a formal way; there has to be an appreciation of the fact that cultural diversity in the work place (Kamrava & Babar, 2012; Thomas, 2008) could mean different ways of learning; thus, considering diverse learning procedures could be challenging in economic terms.

(ii) The Management Perspective of Learning in Organisations

The role of management in the application of knowledge for production and learning is crucial (Allee, 1997), as management must provide strategies that can facilitate learning capabilities (Wiig, 1995). As a result, the management school of thought relies on the understanding that there can be a deliberate management policy to institute organisational learning, even in an informal way, as knowledge is tacit (Tennant & Fernie, 2013). Hence knowledge can be passed on to other people with ease. This, however, is only applicable in circumstances that promote formal interaction within organisations, such as induction periods for new workers (Tennant & Fernie, 2013). With a diverse workforce in the Persian Gulf states, the learning process cannot be guaranteed since migrant workers may have a different approach to local ones (Kamrava & Babar, 2012); those in the private sector might also look at issues differently from those working for the government. This means that policies could be one issue and implementation another.

(iii) The Development Perspective of Organisational Learning

According to Tennant and Fernie (2013), management can take a developmental school of thought if their strategy is to create a structured system for ensuring that learning is introduced in the organisation in an 'educational style' setup in order to allow the workers to commence their formal learning and develop themselves over time. This has been useful in the construction industry because people can be

taught various competencies from the time they join organisations (Love, 2009; Tennant & Fernie, 2013). This approach is identified as a powerful tool in many countries where technical migrant workers could be useful to facilitate business development (Gardner, 2012); it is therefore possible to argue that organisational learning can equally follow a similar pattern.



Figure 4-4: Organisational Learning Perspectives (Adapted: Tennant & Fernie 2013, p.88)

(iv) The Process Perspective of Organisational Learning

In the process school of thought, organisational learning is embedded in the operations of a business through the creation, capture, use and sharing of knowledge (Tennant & Fernie, 2013; Wiig, 1995). In industries, such as construction where the processes make products, this approach to learning is vital because the processes allow for all forms of learning rather than a solely formal mechanism (Tennant & Fernie, 2013; Wiig, 1995). This implies that the individual could undertake learning through the processes set in place by the organisation; however, there is no preplanning as to which form of knowledge is to be learned (Tennant & Fernie, 2013).

All four schools of thought could be useful to the industries because the structure of the learning process an organisation adopts is a decision taken at the organisational level; however, actions from each organisation could have an impact on the industry as a whole. The management in an organisation therefore have to take into consideration the business environment and the cultural and social settings of the organisation.

4.6 Signs of Knowledge from Organisational Learning

Without knowledge, learning at the organisational level could be meaningless (Wiig, 1995). As a result, organisations may realise that the management of knowledge within their business environment is essential for learning to take place (Chan & Mills, 2011). When such learning takes place, there is a high probability that value can be created, productivity could be improved, and that the organisation could be highly competitive (Chan & Mills, 2011). However, the signs of knowledge are only as visible as the effort put in by management to capture, use, and share it (Wiig, 1995). It could therefore be argued that the management of knowledge at an organisational level is important to the overall strategy to institute learning in a formal or informal way (Chan & Mills, 2011).

In project environments, the main signs of knowledge sharing in organisations include, but are not limited to; (a) a high level of competitiveness; (b) an increase in

value creation and possible loss reduction; (c) the introduction of knowledge creation, capture, use, and transfer mechanisms; (d) the creation of links for knowledge sharing; (e) when the focus is the customer and the feedback from the workers is aimed at continuous improvement; (f) where innovation is continuous; and where (g) intellectual capacity can be maintained (Chan & Mills, 2011).

4.7 The Role of Leadership in Establishing Organisational Learning Structures

It is possible to notice that the signs of knowledge within an organisation can become more visible if the leadership can develop the knowledge base in order to allow all forms of learning (Chan & Mills, 2011). If, however, the power-distance between the leaders and their followers is too high (Hofstede, 2003), establishing learning processes such as recruitment and training, could become meaningless organisational rituals that bring no value. Therefore, the sort of leadership exhibited by company strategists could impact the system used to gather tacit and explicit knowledge. Regardless of the constraints associated with the introduction of learning systems, it could be argued that construction businesses could realise considerable benefits if they apply knowledge management in their day-to-day operations because it can lead to learning at an organisational level (Henderson, Ruikar & Dainty, 2013). However, the application of knowledge varies from business to business, although the focus has typically been on dealing with more immediate pressures in the businesses, such as bidding, construction or project controls (Henderson et al., 2013). When examining the processes of embedding learning in the business, it is possible to see a lot of inefficiency because construction firms have some of the highest turnovers of experienced staff, which leads to a loss of tacit knowledge (Henderson et al., 2013). Therefore, leadership in Qatari industry should focus on human development whereby, even if the turnover is high, experienced people could be found to replace leavers.

4.8 The Implementation of Organisational Learning

For the Qatari industry to operate with a knowledge base, it needs organisations that can strategise and implement organisational learning, firstly as competitive entities

and secondly, as units of entities that could operate efficiently. At the organisational level, industries have been working towards organisational learning by way of implementing knowledge-management techniques, such as the deployment of information technology systems; however, more needs to be done in order to move organisations to another level (Nwankpa & Roumani, 2014). Like many organisations in the Persian Gulf, there are myriad factors that need consideration when it comes to addressing organisational learning, and this is because of the multi-cultural nature of the key players (Gardner, 2012; Hofstede, 2003). The capacity of organisations to learn could be made easier or harder due to multi-cultural, multi-experienced and multi-social interactions at the industry level (Thomas, 2008). As a result, it is necessary to take a holistic approach to the implementation of the leadership, management practices, structures, procedures, training and policies required for organisational learning (Nwankpa & Roumani, 2014). The four issues that need considering when attempting to strategise for organisational learning are:

(i) Management commitment to organisational learning

This is the first point that Wiig (1995) established as essential for the management of knowledge; in this case for learning, the workforce need to see commitment from management. The dilemma for Qatar is that, if 70% of the workers are migrants, their commitment to learning could be influenced (Mednicoff, 2012)

(ii) Investment in systems that promote organisational learning

The starting point is to ensure that systems useful for the creation, capturing, sharing and using of knowledge can be enhanced (Wiig, 1995). This could be implemented through formal or informal learning systems but there has to be a mutual benefit to the individual and the organisation.

(iii) Openness and experimentation in the learning process

Nwankpa and Roumani (2014) explain that, if an organisation does not give enough latitude for workers to learn and make mistakes, and to learn from their mistakes, their learning could be stifled. Experimentation is therefore considered

crucial for learning processes, and there must be open-mindedness regarding such learning processes.

(iv) Transferring and integrating lessons

When lessons have been captured, they need to be transferred, where necessary; the integration of lessons from various levels or sections of an organisation is vital.

Based on these considerations, it is evident that the issue of knowledge creation, transfer, use, sharing and are impacted by the behaviour of those involved, hence making it possible to have a human influence on learning (Nwankpa & Roumani, 2014). The commitment from organisational leaders can deal with human development in many ways, apart from engaging them during the production process. Human expertise is crucial in ensuring that businesses focus on the issues affecting their performance and this is because the environment keeps changing (Garcia-Morales, Llorens-Montes & Verdu-Jover, 2007). In addition, the workforce needs to be motivated to learn and be innovative otherwise it could be difficult to achieve any internal learning targets. Furthermore, there must be organisational as well as personal learning targets that can be reconciled at the professional level (Garcia-Morales et al., 2007). However, the balancing act between the needs of the worker and those of the organisation is a constant threat to organisational learning, knowledge sharing and the use of knowledge because it touches on skill levels, personalities and the working environment (Garcia-Morales et al., 2007).

4.9 Matching and Improving Competencies

Based on current practices, every organisation could develop the forms of competency necessary for it to operate efficiently. A competency is, “*a bundle of skills and technologies that enables [a] company to provide benefits for customers rather than [a] single skill or technology*” (Suikki, Tromstedt & Haapasalo, 2006, p.725). Figure 4-5 maps the process of understanding the competencies needed for organisational learning. From the start, an organisation is expected to employ skilled workers who are expected to continue developing their skills and competencies. However, their development depends on how they behave or their level of receptiveness towards

learning. If receptive, they can then gather knowledge, which could equally be useful to the organisation

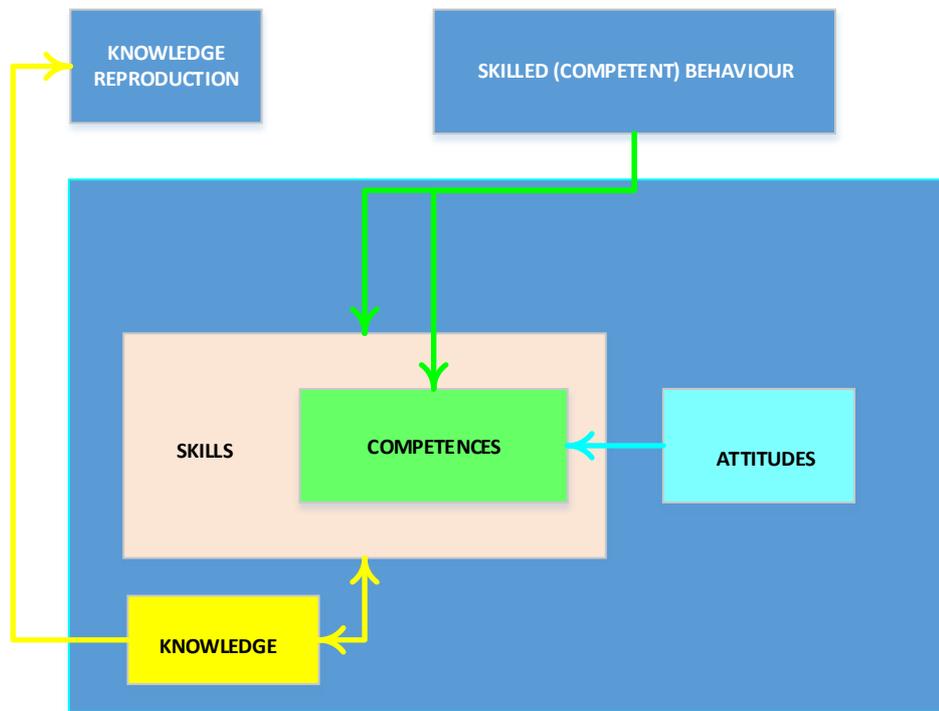


Figure 4-5: The Map Of The Evolutionary Development Of Competencies (Source: Suikki et al., 2006, p.725)

If workers have a negative attitude towards learning, or are unable to develop their knowledge base, an organisation cannot move to one that has signs of ‘learning’ (Suikki et al., 2006). Such behaviour is a personal issue that the company may not be able to influence; however, it has an impact on how well someone can learn. This is a crucial issue for Qatar when considering that local Qataris have been reluctant to take up strategic positions that could propel them to learn and operate in a knowledge-based economy.

4.10 Deficiencies with the Approach to Organisational Learning

Even though proponents of organisational learning argue that, without learning, organisations could stifle their development or competitiveness (Gieskes et al., 2002), there are inherent deficiencies in the manner in which learning is implemented due to

internal and external cultural factors that are presumed to be consistently in line with business principles (Nyhan et al., 2004). In reality, there are inconsistencies with the way organisational culture is taken at an individual level. In most cases, there are no rules in place regarding learning, therefore the implementation of learning structures or practices could be haphazard. Nyhan et al. (2004) argued that companies have concentrated considerably on developing systems that could influence the behaviour of workers to make them more productive. However, often little attention is paid to ensuring that individuals could also be personally developed so that their learning behaviour could eventually be useful to their work, their industry and their families (Nyhan et al., 2004). It has been recognised that businesses could have their own interests; however, individuals would also have to be considered in the strategy for learning because it could affect their job security or attitude to work (Nyhan et al., 2004). The main deficiency to learning is therefore a lack of attention to the workforce in terms of what they prefer at the operational level (Thomas, 2008).

4.11 Summary

For Qatari industry, the threat to the policy of organisational learning emanates from the difficulties in managing a largely migrant workforce dealing with complex issues, which are crucial to a KBE (Gardner, 2012). There are varying social, cultural, political and religious factors to consider in Qatar and the Persian Gulf at large (Kamrava & Babar, 2012). As a result, processes to manage people need to incorporate emotional intelligence as well as possible cross-cultural sensitivity to learning (Thomas, 2008), otherwise staff turnover could be a problem (Garcia-Morales et al., 2007).

It could be argued that the contentment of locals is a threat in itself to the process of learning and the implementation of the learning process. Therefore, the overall risk for organisational learning starts with the organisational culture that has been embedded in the companies over the years (Kissi, Dainty & Liu, 2012). The operations of the industry need to be assessed in order to identify patterns concerning learning, innovation and commitment to learning, and behaviour, as well as the social, cultural and religious attitudes towards the drive to create, capture, share, use, and transfer knowledge (Kissi et al., 2012). The attitudes of the local workforce have a

significant role in assessing the implementation of learning in organisations. It is a complex issue considering that Qatar has workers from all corners of the world; as a result, this complexity needs to be managed otherwise any such learning process could be extremely difficult to implement (Ochieng, Price, Ruan, Egbu & Moore, 2013).

The ways in which organisations go about their operations is important to the learning process. If there is a standard approach to operational challenges, the learning process could also be standardised. For instance, Lyles (2014) explained that, if the current environment promotes learning through innovation, it is possible to apply the learning process. However, the skill levels may vary hence there may be no single approach, which could be ideal for everyone (Ajmal, Kekale & Takala, 2009). However, good practice can be established so that other organisations can benchmark the practice (Ajmal et al., 2009). Ultimately, the context wherein learning is to be applied to organisations can only be assessed by the industry; without contextual analysis, it could be difficult to implement organisational learning (Gieskes et al., 2002).

This chapter has discussed in-depth one of the main drivers for a knowledge-based economy, namely organisational learning. Knowledge management underpins organisational learning; therefore its implementation must be driven by initiatives that are backed by technology, strategy, leadership, and worker involvement. These tasks fall to individuals within organisations, but the participation of individuals to learn in the organisation is not enough. To enhance the effectiveness of individuals and organisations, a policy to actively involve workers is essential for Qatar's economic growth. This chapter has also assessed the contextual factors that are necessary to implement organisational learning, and these include:

- Integrating informal social networks with the formal structural networks between individuals.
- Providing an enabling environment that could allow for structural as well as informational interaction between people
- Human development
- Guidelines and support
- Training, specialisation and experience.

Lave and Wenger theorised the contextual entanglement of learning, and explained that the way people operate at an organisational level is driven by power and politics, creating islands of informal or formal structures whereby the implementation of learning depends on how well an organisation deals with these elements. Also, the Chapter provided a discussion on four schools of thought, namely, the economic, management, development, and/or the process perspectives. These schools of thought about organisational learning need to be useful in order to allow for a flexible way to develop learning at the organisational level, and thereby form a part of talent management.

From the previous and current chapters (Three and Four), this research can conclude that human development is the most influential factor in the process of managing knowledge and learning in an organisation to foster competitive advantage in a KBE. The next chapter will expand on the literature concerning talent management.

5 CHAPTER FIVE: TALENT MANAGEMENT AND THE KNOWLEDGE WORKER

5.1 Introduction

To sustain economic growth and transition into an era of competitive advantage, economies must become knowledge-based. This depends on intangible organisational assets fostering innovation. The prosperity of an organisation that is knowledge-intensive depends on the contributions of talented employees for a contemporary knowledge-based economy. To explore this concept, the present chapter is structured as follows:

- Talent management: the status quo
- Myths about global talent management
- The effectiveness of talent management and its impact
- Human capital development
- Modernisation: The target for managing talent in the Qatar
- Nationalisation and the impact on talent development

5.2 Talent Management: The Status Quo

To achieve sustainable economic growth, organisations must learn to compete efficiently in today's dynamic global economy (Tarique & Schuler, 2010), which requires a paradigm shift from traditional human resource management (HRM) and strategic human resource management (SHRM) to talent management (TM) as the main contributor to a firm's competitive advantage (Collings & Mellahi, 2009). Talent management has gained researchers' interest and become popular since a McKinsey consultant referred to the *War for Talent* in 1997 (Nilsson & Ellström, 2012). According to Tansley (2011), there is no single or universal definition for 'talent' in any language; however, the contemporary meaning for talent refers to the way individuals are perceived by an organisation as either being of high potential now or offering potential throughout the future growth of an organisation. At the organisational level, 'talent' refers to those individuals who make the greatest, *“difference to organisational performance, either through their immediate*

contribution or in the longer term by demonstrating the highest levels of potential” (Tansley & Tietze, 2013, p.1800). This implies that organisations must develop a deliberate policy to identify and monitor individuals with high performance attributes that are of strategic value to the organisation. Here, value can be qualified to either mean the production of high-quality services to the organisation or to act as innovators for products and services (Tansley & Tietze, 2013). The talent of organisations has also been referred to as knowledge workers.

Even though there may not be a single definition for talent, there is a widespread realisation that managing people with unique knowledge and skills is essential to the survival of organisations (Huang & Tansley, 2012), whether they are private, public or quasi-government. By definition, *“talent management consist[s] of a set of processes for succession planning and accelerated development paths, typically for executive level roles, aimed at those employees with the highest potential who also demonstrate a capacity for high performance”* (Huang & Tansley, 2012, p.3673). Talent management is not performed by any specific department within an organisation but by human resource (HR) specialists; it is, *“aimed at addressing competition for high-value labour in widening global markets alongside key employees’ demand for fast-track career development”* (Huang & Tansley, 2012, p.3673). Sparrow, Farndale and Scullion (2013) affirmed that the involvement of HR in the implementation of talent management has been considered essential; however, some organisations are said to use talent management as mere rhetoric to fall in line with the corporate world. Thus, as rhetoric, (Oxford University Press, 2013), talent management is used as a key term to influence people in a mythical and dishonest manner (Huang & Tansley, 2012); organisations can be seen taking strategic interests in people who can provide strategic contributions to their organisations’ overall competitiveness as well as its ability to architect, manage, and sustain its knowledge base (Huang & Tansley, 2012).

According to Tansley and Tietze (2013), the implementation of talent management by many organisations is seen as a programme with individuals treated as projects so that their potential can be amalgamated into corporate portfolios with talent captured at both individual and collective levels. Tansley and Tietze (2013) show that, in talent management, there has to be advanced strategic planning systems; such systems can

be used to identify and develop talent in accordance with the goals of the organisation. It could be argued that such a complex issue has to be implemented based on the technical and non-technical factors attributable to human resources. Huang and Tansley (2012, p.3674) supported this point of view when they explained that, in most organisations, HR relies on innovative means of identifying talent and managing it, and that the identification process itself has to rely on, “*unique characteristics, not least a tendency to focus exclusively on elite high performers in terms of managing their development, promotion and retention in order to align with the strategic needs of the organisation*”. Take, for instance, the progression route that most organisations adopt to develop talent (shown in Figure 5-1).

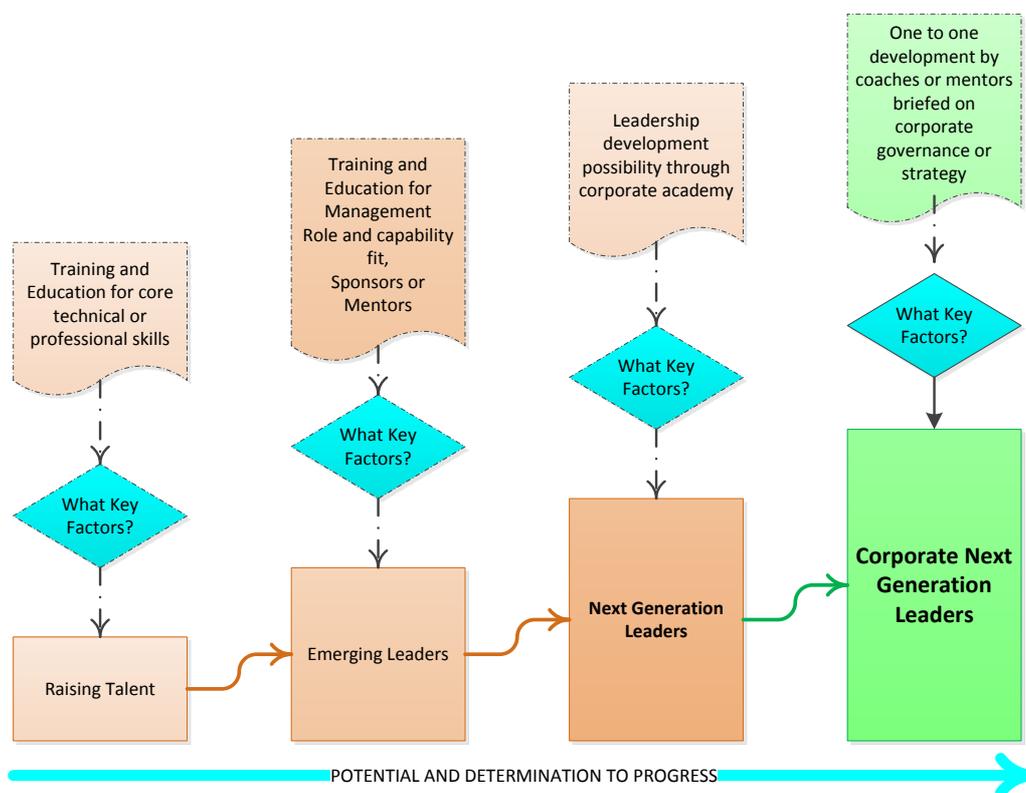


Figure 5-1: Talent Identity Progression In An Organisation Through Development Rituals (Source: Tansley & Tietze, 2013, p.1806)

Talented employees need to be noticed by strategic managers and perceived as crucial to the organisation in terms of how they execute tasks; when this occurs, they are then designated as ‘raising talent’. The key factors considered for the initial stage of raising talent, according to Tansley and Tietze (2013), is, the ‘education and training’

regarding the technical and professional knowledge that is embedded in the organisation. Nevertheless, Figure 5-1 shows that an individual has to be trained and educated before being placed under a mentorship programme to become an ‘emerging leader’, with full responsibilities (Tansley and Tietze, 2013). Such leadership qualities have to be developed to the full before the person can be a recognisable leader for the ‘next generation’. Tansley and Tietze (2013) further stated that, when the person is clearly earmarked for leadership, they could be offered one-to-one leadership mentoring as well as undergo a detailed education and analysis of corporate strategy.

The crucial issue in the progression route is to be identified and managed as an individual with talent, and this largely depends on the decisions made by existing strategic managers, which need to be in line with the organisation’s HR policies. There is social, cultural and political interplay within HR policy to implement talent management, and it could be argued that, if the interplay of these factors is not well managed, talent management cannot be feasible and/or realisable (Huang & Tansley, 2012). For instance, Huang and Tansley (2012, p.3674) stated that there are times when an, *“organisation can fail to establish and sustain the necessary legitimacy when institutionalising an innovation that has a very weak consensus base amongst its stakeholders”* which in turn could, *“cause serious employment relation problems which can threaten the survival of the organisation”* (Huang & Tansley, 2012, p.3674). Similarly, each time talent management takes an exclusive approach to the identification and development of talent which is politically incorrect, and thus, *“fundamentally acting against the principle of equal opportunity that many organisations strike to achieve”* (Huang & Tansley, 2012, p.3674), it becomes contentious and a potential source of organisational conflict and discontent among employees.

HR initiatives regarding the development of talent have been controversial in Qatari industries. Many organisations’ efforts to develop local people (Qataris) into future leaders for the firms have proven unpopular among experienced workers. While the government has been implementing the policy to empower local international firms that employ expatriate technocrats, they find it difficult to turn away local people who have to be developed into leaders, even though the perception of the local workers is that they are not well qualified or that they are too inexperienced to take on a leading

role in an organisation. Anecdotal evidence suggests that there is a belief in Qatari industries that most companies are biased towards developing Qataris not because of their technical and leadership competencies at the time of their appointment to leadership roles, but because HR departments have to be seen to be politically correct as they implement government policy on labour laws.

Qatari organisations rely heavily on the global functions of talent management to be able to attract and retain the best talent needed for the implementation of the Vision 2030 plan. This means that, as a country, global events have great significance and a profound impact on the job market, similar to the international job market (Sparrow et al., 2013). Global economic events tend to be cyclical; there are times when global events trigger the movement of talent from job market to job market. If organisations have to secure the best talent, they need to ensure that they can pick such individuals out of a crowd, and be able to manage that talent effectively (Sparrow et al., 2013). In such an environment, Sparrow et al. (2013, p.1779) argue that HR policy would have to: (i) develop strategies and tools that can be used to identify and monitor all global talent management practices and policies across their business portfolio; (ii) guard a culture of mobility within and across the organisation, *“incorporating values and systems in organisational strategies and activities to support global mobility of individuals and breaking down silo mentalities that can exist between business divisions and geographic regions”*; (iii) develop managers of receptivity whereby HR, *“encourages the in and outflow of key talent across business entities; active management of key talent to ensure individuals are looked after; encouraging receiving units to manage diversity, careers, integration and work–life balance; and encouraging sending units to share their talent for the goodness of the firm as a whole”* and (iv) develop, *“network leadership and intelligence by ensuring that there are appropriate networks in and outside the organisation to support the talent management process; being aware of developments in the internal and external labour market; mobilising appropriate talent both internally and through external providers; and a sense of timing and context”* (Sparrow et al., 2013, p.1779).

It can be seen from Figure 5-1 that talent management has many dynamics as well as myths that have to be explored, as shown in section 5.1.1. From this, it could be

assumed that the process of identifying and developing talent is as transparent as possible, yet the reality is different.

5.2.1 Myths about Global Talent Management (GTM)

As Qatar has been using multinational firms in the development of many projects, including the management of projects at the government level, it could therefore be argued that global talent is paramount for Qatari industries. According to Minbaeva and Collings (2013), there are seven main myths about global talent, which include:

- (i) Talent management is a focus of top management, with strategic personnel responsible for identifying and developing talent. In reality, the people involved in the identification of talent are human resources professionals. Therefore, HR needs to convince strategic managers, such as chief executive officers and the like, about potential talent and how it must be developed (Minbaeva & Collings, 2013).
- (ii) Talent management is all about ‘people’, mainly because without talented people there can be no performance in the organisation (Minbaeva & Collings, 2013). By focusing on purely identifying the best people, the whole process of talent management can lack direction; talent within the organisation can, in such circumstances, easily be developed to become the best.
- (iii) Only the ‘star players’ or ‘A-rated workers’ are given positions in leadership and poor performers are ignored. This is an erroneous perception because talent needs to be viewed as an unqualified positive resource for an organisation regardless of how it has previously been employed (Minbaeva & Collings, 2013).
- (iv) If an organisation finds that it has no talent in a region of its interest, it could identify talent from one region and then transfer it where necessary (Minbaeva & Collings, 2013). This myth assumes that talent is ‘portable’ and that by relocating it they can deal with a lack of talent in a specific area. As talent relates to individuals and their preferences, it becomes difficult to move it from one place to another given the social, cultural and personal factors that could affect such employees (Minbaeva & Collings, 2013).

- (v) The turnover of talent is very bad for an organisation because top talent could be pushed to seek employment elsewhere if there are no opportunities in the current organisation (Minbaeva & Collings, 2013). There is evidence that, even if top talent leaves an organisation, there is a possibility that operations could be sustained by other talent. This myth has been proven wrong by Microsoft, and other technology-based organisations (Minbaeva & Collings, 2013), that have lost talent over the years but continue to succeed in their businesses.
- (vi) The performance of each organisation and its subsidiaries can be measured on an equal basis, allowing for a comparative analysis of the whole investment in talent to establish a measurable benefit associated with such investment. While it is crucial to measure return on investments, Minbaeva and Collings (2013) stated that it cannot be measured precisely as far as the development of talent is concerned.
- (vii) All decisions made about the way talent is managed are 'fair'. Judgements made by human resource managers or officers can be biased, and top managers may not have all of the accurate knowledge about the people whose talent they would recommend to their organisation.

The myths associated with talent mainly relate to how an organisation develops talent that could enhance its operations. There are social, cultural and technical beliefs that have to be addressed if talent is to be developed for such individuals to reach a level where they could become knowledge workers.

5.2.2 Effectiveness of Talent Management and its Impact on Organisational Learning

According to Festing, Schäfer and Scullion (2013), there are three main areas of talent management that permeate Qatari industry: (i) highly engaged talent management; (ii) reactive talent management; and (iii) retention-based talent management. Their research found that, despite the difference in approaches to talent management, companies place high importance on this area because it looks at a developmental approach to business. Festing et al. (2013) argued that if an industry was to choose a more inclusive approach to the implementation of talent management, it could be

possible to target most employees and avoid 'elitist' approaches. Elitist approaches have been seen as a divisive way of managing talent, which does not foster industrial cooperation and therefore results in talent wars (Festing et al., 2013). It could be argued that effective talent management is a wider concept that requires strategic planning and careful implementation.

For an organisation to win a talent war, it has to boost its organisational learning capabilities through the processes of team-based talent management (Oltra & Vivas-Lopez, 2013). The drive behind the need to boost talent is not only the complexity and competitiveness of the business world; rather, it is understood that organisations cannot afford to strategically remain static while there is a fight for intangible and knowledge-based resources around the world (Oltra & Vivas-Lopez, 2013). An organisation with a drive for knowledge would ensure that innovative skills and employee creativity are central to their operations or else it could find itself outside the realm of 'organisational learning' (Oltra & Vivas-Lopez, 2013). Therefore, effectiveness in talent management needs to reflect a desire to improve strategic operations in terms of how talent is boosted for the benefit of the organisation.

5.2.3 Human Capital Development

Central to the concept of talent management is the way an organisation develops its human resource base. This means that how an organisation structures the process of developing its human capital has a significant impact on its management of knowledge as well as the development of talent (De Vos & Dries, 2013). According to De Vos and Dries (2013) talent is seen from the organisational-strategic perspective to infer that the human capital of an organisation lies in its value and uniqueness. There is nothing wrong with organisations adhering to, "*traditional' models of career management (i.e. strategic, paternalistic, bounded and formalised)*"; however, they have to respond to, "*human capital shortages which they found to be important determinants of importance attached to continuity as a career management goal and, consequently, of an organisation's approach to career management*" (De Vos & Dries, 2013, p.1816). When talent is referred to as, "*'value', it means that there is potential for human capital at hand to contribute to the core competencies of the organisation, such that it could lead to competitiveness*" (De Vos & Dries, 2013,

p.1816). On the other hand, uniqueness refers to, “*the extent to which the organisation’s human capital would be difficult to replace (high uniqueness) as opposed to being readily available in the labour market and easily copied by competitors (low uniqueness)*” (De Vos & Dries, 2013, p.1817). Talent is not only used as a tool for developing human capital but also as a tool for assessing the performance of employees (Vural et al., 2012). As complex as the process of talent management is, the actual implementation and retention of the workforce has proven to be challenging for strategic managers (Vural et al., 2012); furthermore, the issue of introducing talent management as a measurement yardstick for the performance of workers highlights the value attached to human resource development.

5.3 Modernisation: The Target for Managing Talent in the Qatari Economy

Aksakal, Dağdeviren, Eraslan and Yüksel, (2013) observed that, at the international level, there is a realisation that using knowledge workers improves organisational capability, skill and performance, and boosts organisational success. As a result, the selection process of the talent needed for an organisation is an important issue. Joyce and Slocum (2012) observed that most chief executive officers in organisations recognise the importance of talent. However, it is common to find that top management or strategic leaders merely pay lip service to the importance of human talent in an organisation in that they recognise it verbally but do not do anything practical to promote it. In Qatar, there is anecdotal evidence that many firms do not assess qualifications, but instead only look at the history of ‘your tribe’ and how ‘your people’ in the past may have behaved against their leaders. This approach has a severe impact on the current generation (culture and people). Factors, such as social influences (networking) and political elements, including government policies on talent and tribal tendencies, have a substantial role to play in human development. Allen, Brown, Karanasios and Norman, (2013) state that the very networks they rely upon impacts societies that rely heavily on social and cultural networks. They call it ‘critical realism’, which they define as a social structure that allows the enduring social relations of social positions into which individuals are said to ‘slot’. “*According to critical realism, social structures constrain and enable the very activities through which they are reproduced or transformed*” (Allen et al., 2013, p.837).

The process of talent management attracts inherent scepticism concerning how talent is selected, either on merit or through connections, mainly due to the social and cultural contexts of organisations in Qatar. There are a lot of questions regarding how managers decide what talent to promote. At the organisational level, it can be complex; at the industrial level, it can even be more difficult. The need for a critical management theory that questions scientific as well as the social models is crucial. Tourish (2012, p.180) outlined that, “*critical realists emphasise that social reality “consist[s] of much more than the linguistic, symbolic, and discursive resources and practices through which we come to describe, understand and reflect on it”*”. There is also an acknowledgement that, “*our knowledge about the world is relative and socially constrained, critical realism affirms a distinction between the transitive or subject dependent aspects of knowledge and the intransitive or actually existing and real objects of our knowledge*” (Tourish, 2012, p.180).

5.4 Nationalisation and the Impact on Talent Development

As far as industry in Qatar is concerned, the guiding principle for human capital development is set in the Vision 2030, underpinning the government’s policy to transition the country to a KBE (GSDP, 2008). While the government’s policy could be taken as a target, it may not be possible for it to be replicated at the organisational level without shaking up or changing the ways in which the performance of talent is assessed (Sahai & Srivastava, 2012). In other words, government policy does not necessarily absorb fierce competition, political and economic uncertainties, or the social and cultural factors that affect various industries. The top-down approach taken by government is essential for policy makers at organisations; however, the actual work of ensuring human capital development to promote a KBE requires a bottom-up approach where organisations take it upon themselves to support individual talent (Tansley, 2011; Tansley & Tietze, 2013). Each organisation would have to identify, “*individuals who can make the greatest difference to organisational performance, either through their immediate contribution or in the longer term by demonstrating the highest levels of potential*” (Tansley & Tietze, 2013, p.1800), herein referred to as ‘talent’ (Tansley & Sempik, 2008).

As part of the Vision 2030 scheme, the government has identified the need to engage local Qataris in various national events to drive the notion of a KBE that is led by local citizens (GSDP, 2008). This policy has impacted the development of local talent at the organisational level to ensure that local Qataris can participate fully in talent management. Therefore, individual organisations have to act as clusters of firms where talent management can be implemented so that the sum total of their actions might eventually lead to the effective management of talent across the economy (Chabault et al., 2012).

However, the status quo shows that there are problems as there is no deliberate policy targeting national talent to support the process of talent management. For instance, a pilot survey conducted in 2012 indicated that expatriates had difficulties working under Qatari managers. Expatriates felt that there were too many Qatari managers who were placed in management positions because of their nationality as opposed to their competence and/or experience. Productivity therefore suffers because managers lack experience and there is considerable unnecessary bureaucracy related to government policy. The process of engaging professionals is fuzzy and largely influenced by tribal connections that emanate from the privatisation of companies that have been given contracts to deliver infrastructure. The survey also indicated that there is a lack of government involvement in the process of engaging professionals since companies operate as private entities that are tasked to deliver public facilities. There is also notable inefficiency in companies because of the unprofessionalism linked to the lack of talent therein.

Overreliance on global talent is a short solution to meeting workforce demands. The continuity of the status quo implies that there is no deliberate strategy in place to enable nationals to pick up knowledge and practice from global talent operating in Qatar. This research anticipates that the use of talent management has the potential to change the course for the involvement of nationals at strategic and operational levels.

5.5 Discussion

For some industries, the application of talent management has reached an advanced stage; in others, the concept is in its infancy. As a result, there are varying views or

ideas about the application of talent management, according to Thunnissen, Boselie and Fruytier (2013). They have argued that the current way of looking at TM could be said to be very ‘managerialist’ and ‘unitarist’, leading to a view that if TM is seen as taking a narrow perspective, it can be limited in the way it could be applied to the overall management of human resources (Thunnissen et al., 2013). According to Vaiman, Scullion and Collings (2012), the decision to apply the concept of talent management is a strategic one and could depend on how knowledgeable the organisation is about its own talent. For a knowledge economy to thrive, there must be intensification in the overall management of knowledge associated with industries and in the economy as a whole (Whelan, Collings & Donnellan, 2010).

There has been a noticeable increase in the use of talent management within research and development because of the realisation that conventional management models may not achieve the ultimate results that organisations may seek (Vaiman & Collings, 2013). Even though this is the case with Qatari industry, there is a policy from the 2030 Vision that highlights a strong self-belief in Qatari talent. Such an approach is a leadership strategy for the industry to adopt, (Rhodes, 2012); however, actual implementation rests on local industries as well as the people operating at various managerial levels of the country’s organisations.

If taken from a technical perspective, the application of talent management could ignore the importance of social and ethical dimensions to the detriment of both the organisation and its employees (Downs and Swailes, 2013). This means that, “*the assumption that talent must be found, segmented, natured and placed in pivotal positions that are crucial for the competitive advantage of the firm*” is likely to lead organisations to ignore the social factors that are fundamental to the application of talent management (Bjorkman, Ehrnrooth, Makela, Smale, & Sumelius, 2013, p.196). It is vital to consider social exchange theory, which, “*suggests that when corporations invest in their employees, they are likely to reciprocate these corporate investments in positive ways, providing a useful lens through which to understand the mechanisms involved in how employees interpret and react to organisational talent management practices*” (Bjorkman et al., 2013, p.196).

Social theory basically advocates for a socially balanced way of assessing the level of inclusion of the talent within Qatar so that individuals do not feel left out. The theory of social inclusion can affect the process of talent management. Therefore, allowing conventional management strategies to develop a knowledge-based economy through various organisations in Qatar could be challenging unless a critical review of modern ways of thinking can be used (Farmer, Meisel, Seltzer & Kane, 2012). Organisational culture could prove to be key to the way human development could be implemented. Hu, Dinev, Hart and Cooke, (2012, p.618) argued that, “*culture, when conceived as shared key values and beliefs, full-fills at least four important functions in organisations: (i) culture conveys a sense of identity to organisational members; (ii) facilitates the generation of commitment to something larger than itself; (iii) enhances the stability of social systems; and (iv) serves as a sense making device that can guide and shape the behaviour of the members*”. The challenge is to assess the decisions that top managers make about organisational goals with reference to human development (Ke & Wei, 2008). If an individual does not agree with the social constructs of the top management, they could find themselves left out of development programmes (Cameron & Quinn, 2005; Tsui, Zhang, Wang, Xin & Wu, 2006). There is also the issue of organisational politics, which could affect the social structure and cultural norms of the organisation (Levy, 2008). Miller et al. (2010) argued that factors, such as organisational culture and the social and political atmosphere of an organisation, could impact the application of management principles that would otherwise be useful to human capital development. It is therefore crucial to consider all forms of factors when developing a framework that could be used in the process of developing a knowledge worker.

5.5.1 Detailed Summary of Literature Findings

The literature in this area has established that a knowledge economy is associated with a, “*greater reliance on intellectual capabilities than on physical inputs*”, hence putting more emphasis on human capital (Felin et al., 2009, p.555). It has also observed that a KBE is linked to productivity and the systems that underpin that level of productivity. It could, therefore, be argued that public policy, economic growth, human development, and social-cultural theories align with the National Vision 2030 for Qatar. However, the alignment of these theories with a national policy would not

automatically transform an economy from one that heavily relies on hydrocarbons to a KBE. The literature has all but demonstrated the top-down approach of the QNV 2030 when considering the national policy and how it cascades to a knowledge-based economy (KBE), albeit theoretically. This is shown on Figure 5-2, where:

- (i) The national policy forms the overall guide which can be considered crucial to a KBE economy in Qatar, and has been implemented using the Vision 2030 programme;
- (ii) The second highest factor needs to be the translation of the Vision into strategic output variables at an organisational level;
- (iii) The third level could evaluate the strategic positioning of the firms that operate in the industry to ensure that they can develop their identifiable talent;
- (iv) The fourth level would assess the human capital development within the Qatari economy, and
- (v) The fifth level could identify talent and set such individuals on human development programmes within their organisation.

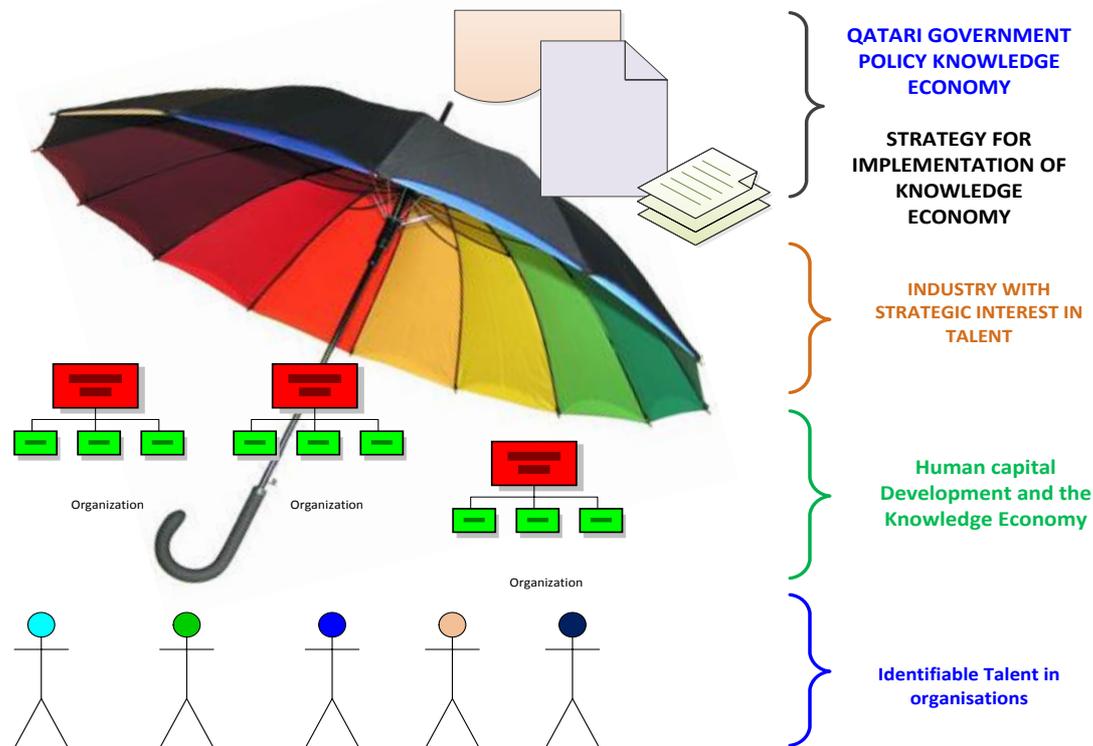


Figure 5-2: Graphical Representation Of The Knowledge-Based Economy When Applied To The Qatari Construction Industry

The literature also found that the, “*knowledge economy is a concept undergoing rapid conceptual development*”; for instance, “*the learning economy focuses on learning processes that are responsible for the production of knowledge, whereas knowledge and information cannot be consumed*” (Zaharia, Tudorescu, Zaharia & Zaharia, 2011, p.162). Terminologies such as “*knowledge economy*” or “*knowledge society ... are complex and openly contested policy narratives based on metaphors that have emerged to describe the trajectory of the rich liberal capitalist states and now functioning as generalised policy framework that permit local applications and forms of indigenisation, depending on location, geopolitics, state actors, and a range of other variable factors*” (Zaharia et al. 2011, p.162). According to Felin, Zenger and Tomsik (2009, p.555), there is a general belief around the world that nations and their societies are, “*moving toward a post-industrial or post bureaucratic society in which knowledge and information drive economic growth*”, thereby shifting towards a fully-fledged knowledge economy. In a scenario where knowledge and information are essential for productivity, it is imperative, as Felin et al. (2009) argued, that each economy moves towards information and knowledge-intensive professional services if they are to cope with the demands of a knowledge economy.

However, the literature has not specifically pinpointed the critical factors that could be used in order to create a framework that organisations operating in the Qatari economy could use to foster a KBE. The literature only identified a gap in the way the 2030 Vision was to be implemented. The dilemma for Qatar is that, even though the government has identified and heavily invested in its youth as the prime movers of the Vision 2030, the youth are reportedly disinterested in taking up the challenge (GSDP, 2012). It was therefore envisaged that the identification of the main drivers of the KBE in Qatar would require the use of interpretive structural modelling (ISM) on findings from the literature review as well as the questionnaire survey data. It was also envisaged that the findings from the literature review would form the core basis upon which the questionnaire survey and interview templates would be created, as stated in the research design chapter (Six), which follows on from this chapter.

6 CHAPTER SIX: RESEARCH METHODOLOGY AND PARADIGM

6.1 Introduction

A framework for talent management to support the infrastructure for the knowledge-based economic vision for 2030 in Qatar would only be possible if there is a clear indication that talent management can be applied to Qatar's industries. Talent management would only be feasible if Qatari nationals take up the challenge to develop their knowledge and be developed to work as leaders in the transformation of the hydrocarbon-driven industry into a KBE. Having established the main theories of the knowledge economy, as well as the complexities of talent management, it is now crucial to examine the research methodology that will be used for data collection in this research.

This chapter is structured as follows:

- The philosophy of research
- The philosophy of knowledge
- Research approach
- Research methodology
- Research strategy
- Time horizons
- Research methods
- Design of the questionnaire
- Ethical consideration
- Strategy for data analysis
- Design for testing the hypotheses using quantitative data
- Reliability
- Validity
- Research process

This chapter examines the methodological approach used to answer this study's research questions and meet its objectives (as defined in section 1.6.1); it establishes a

clear research philosophy and line of reasoning as well as other necessary considerations for conducting valid research. The chapter not only justifies the key decisions made with regards to the research philosophy adopted and the like, but also highlights the main steps taken in carrying out this research, as well as the results from each step. The chapter argues that the research needed a combination of positivism and interpretivism because it involved some data elements that require objectivity while others required subjectivity. The research adopted a deductive approach based on the mixed research methodology. It adopted a survey as a research strategy in order to ensure that both qualitative and quantitative data could be collected to answer the research aims, objectives, research questions and hypotheses. Overall, the chapter argues that adopting positivist and interpretivist philosophies was central to the decisions used to determine the research approach, research methodology, methods and design of the data analysis techniques of thematic and regression analysis.

6.2 The Philosophy of Research

Generally, the process of research is guided by the theory that, for any research to reliably produce valid information, there should be a transparent process under which it can be conducted (Creswell, 2007; May, 2001; 2011; Saunders, Lewis & Thornhill, 2009). To this effect, the explanation of the philosophy in this section has been designed to reflect the most logical way to conduct research. This implies that without a transparent explanation of the philosophical standing of the research (Creswell, 2009; Saunders et al., 2009), it may be illogical to justify the design and implementation of any research project.

According to May (2011), there are two broad philosophical stances that a researcher could take, namely: (i) solely based on the objectivity that a researcher attaches to the research; or (ii) driven by the experiences that a researcher has faced. However, Saunders et al. (2009) further sorts these philosophies into four categories, which are: (i) pragmatism; (ii) interpretivism; (iii) idealism; and (iv) positivism (Figure 6-1). Therefore, depending on the source of information, it could be difficult to explain the research philosophy, thus there is the need to examine how the overall concept of 'philosophy' in research is to be used.

When a researcher states their philosophy, they are only meant to bring to the fore their own overarching assumptions about the research that they are to undertake (Creswell, 2007). The set of assumptions includes, but is not limited to, their own set of beliefs that they have about the research, or the ‘worldview’ that underpins their own way of looking at the research problem (Creswell, 2007). A researcher’s worldview about their study is vital because their actions relating to the design of the research and the data collection method, as well as the design of the data analysis and presentation of their results, are driven, or controlled by, their philosophy (Creswell, 2009). In this research, it has been seen that May’s (2011) approach to explaining the philosophy is appropriate, and can be enhanced by its merging with explanations from Creswell (2007) and Saunders et al. (2009).

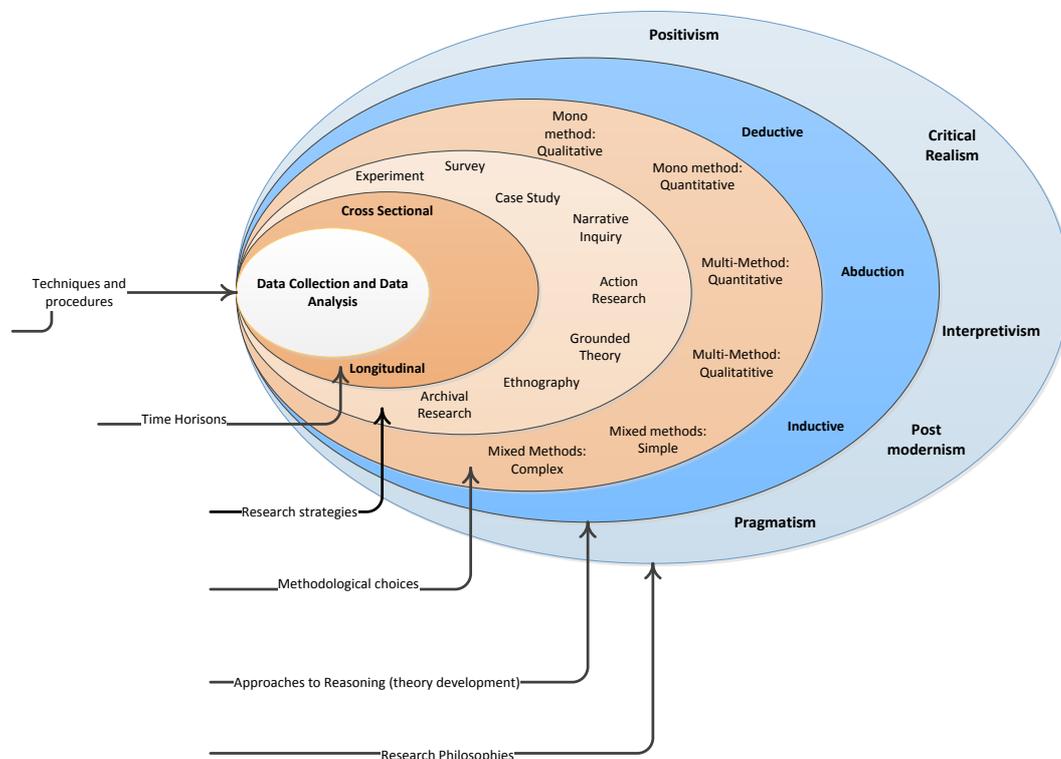


Figure 6-1: Evolution Of The Onion Concept To Research (Source: Saunders et al., 2016, p.124)

For instance, the information on Figure 6-1 may not be sufficient to allow the researcher to adopt a particular philosophy because it is not categorised as either ‘objective’ or ‘subjective’ (Saunders et al., 2009), as is the case with May (2011). This suggests that the articulation of the “*research onion*” concept, by Saunders et al., (2009) – shown in Figure 6-1 – may not be adequate to justify how they explain the

philosophy of the research, hence making their decisions unjustifiable. For this reason, it was crucial to demarcate the philosophies under the ‘objective view’ and the ‘subjective view’, as suggested by May (2011), and explored in sections 6.2.1 and 6.2.5.

6.2.1 Philosophy in ‘The Objective World’

Philosophy with objectivity simply means that an explanation about the world in general can only be achieved in a scientific manner, thereby offering a reflective account of events (May, 2011). This implies that such research would not rely on prejudice and opinions but should rather be an organised process that could be substantiated, proven, and able to deal with beliefs that are opinionated (May, 2011). The researcher, therefore, is expected to research issues out of their social context without being impacted by them as they explain the reality (Saunders et al., 2009). There are three main categories within objectivism, which are: (i) positivism; (ii) empiricism; and (iii) realism (May, 2011).

6.2.2 The Philosophy of Positivism

Positivism is theory-driven, meaning that the researcher has to develop the theory, for which they can obtain the data so that they can generalise their findings to the whole population (May, 2011). The data can be pure and devoid of societal opinion, but the variables do not answer questions (May 2011); hence, the fact that variables cannot answer simple questions can make this philosophy extremely difficult to apply because not all variables can produce numerical or scientific data. Therefore, although positivism is a useful philosophy and can be applied to talent management, it could leave a significant gap in terms of the information needed to explain the rationale behind individuals’ lack of ambition to target value-creation jobs that could lead to a knowledge-based economy for Qatar.

6.2.3 The Philosophy of Empiricism

The application of empiricism to research is similar to the use of positivism because a researcher has to collect and assemble data on a social phenomenon from which they

can generalise or explain human behaviour. However, the major difference between positivism and empiricism is that the former relies heavily on theory development while the latter does not explicitly refer to theory as a guide in the data collection and analysis (May, 2011).

6.2.4 The Philosophy of Realism

As far as realism is concerned, there are some parallels with positivism in that it is centred on an objective way to gather information and on ensuring that the researcher's perceptions are not confused with the results presented from the data (May, 2011). However, Saunders et al. (2009) clarifies that the researcher does not need to end at the data that they have collected objectively; rather, they need to ensure that they are critical about the data and that they can apply it to the reality they face. Therefore, the, "*social world does not exist independently of its knowledge*", as is the case with positivism and empiricism (May, 2011, p.12).

6.2.5 Philosophy in "The Experienced World"

According to May (2011), philosophies of research that are related to experience are concerned with people being 'free agents' who can make their own judgements and decisions based on their inner mental states. The objective world looks at how people could conform to the environment based on the data that is produced from the research; on the contrary, the experienced world is more centred on 'subjectivism', which, according to Saunders et al. (2009, p.601), is, "*an ontological position that asserts that entities are created from the perceptions and consequent actions of those social actors responsible for their creation*". Therefore, peoples' consciousness – as in their thinking and actions – plays a crucial role in subjectivism and the experiential world of research. The two main philosophies in this regard are idealism interpretivism.

6.2.6 Idealist Philosophy

Like the term suggests, idealism emanates from ideas that people can generate and not just the numerical or material connections that are generated from the objective world

(May 2011). In a research philosophy such as positivism, cause and effect can be the norm, whereby the researcher looks at the theory developed to find the answers to pre-set questions; however, idealism concentrates on the researcher's way of contemplating, interpreting and acting on any issue within their environment, thereby widening the analysis of factors affecting human society with the aim of understanding issues far better and more deeply (May, 2011).

6.2.7 The Philosophy of Interpretivism

According to Saunders et al. (2009), the human being is an actor within a social setting, and what they do needs to be separated from the activities they perform. They also explain that context, meaning, and research questions could interplay because social actors could understand something based on these three factors. Hence, there is an element of social constructionism involved within interpretivism where the understanding of the situation is largely dependent on the context, question or issues under discussion (Creswell, 2007). A researcher who adopts interpretivism would have to accept that questions alone might not yield the right answers, as the context and type of questioning are equally important (Saunders et al., 2009).

6.2.8 The Justification for Adopting Positivist and Interpretivist Philosophies

This study of talent management and the need to develop a framework for Qataris to engage in a knowledge-based economy will centre on data that is objective; this can be achieved through a positivist philosophy. This is because a positivist philosophy can facilitate the creation of a theory and its testing using variables (Creswell, 2009). In addition, the philosophy can allow for detailed planning of the research so that the data-collection methods can tally with the philosophy and approach (Creswell, 2009).

On the other hand, the research would need to explore the attitudes and behaviour as well as the experiences of the people in the industry as well as those who work in various companies that could be earmarked for developing talent (Dawson, 2007). Doing so would mean that interpretivism, as a philosophy for the research, would also be crucial. There could be a need for a detailed explanation of the information about the persons involved, as well as the context, explains Naoum (2007), which would

require the gathering of the attitudinal attributes of the data sample members from the data they give to the research.

The other key factor that influenced the decision to adopt both the positivist and interpretivist philosophies was the revised approach to conducting research proposed by Saunders, Lewis and Thornhill (2016), who added the philosophies of 'pragmatism' and 'postmodernism', as shown in Figure 6-1. This implies that there has to be a constant review of the philosophical standpoint throughout the research. If the research is to be current, the researcher would have to be pragmatic in how they assess their view of what could be valid and reliable with their work. In the case of this research, using both positivism and interpretivism was ideal for the study to be current as well as to produce reliable and valid information. However, even if the onion concept in Figure 6-1 is followed, there is no recommendation for particular research projects to adopt any particular philosophies; rather, each researcher has to look at other factors, such as those articulated by May (2011) and Creswell (2007), in order to justify the choices for the research philosophy that they determine best suits their study.

6.3 The Philosophy of Knowledge

Apart from the philosophy of research, the researcher's perception of the creation, value and reliability of knowledge has a crucial role in the decisions made for the research process (Saunders et al., 2016). According to Greener (2008), every researcher can adopt a way to create knowledge, and the purpose of that knowledge could have a role to play in the decisions taken to create it. Greener (2008) explains that there are three modes of knowledge out there: (i) epistemology; (ii) axiology; and (iii) ontology (Saunders et al., 2009; 2016).

6.3.1 Epistemology

According to Singh (2006, p.127), epistemology relates to philosophy concerning truth, or the value or, "*validity of human knowledge and the reliability of the sources of our knowledge*". The main issue surrounding epistemology is that 'knowledge' is said to be a mental state and the person to whom the knowledge belongs is an entity

on his or her own; therefore, knowledge is a subjective phenomenon. The main concern for the philosophy of epistemology, therefore, is how it is possible to determine what knowledge is necessary for the subject matter of concern, because the overall issue of knowledge is centred on the metaphysics of an individual. Metaphysics is the branch of philosophy that deals with the nature of existence, truth and knowledge, (Oxford University Press, 2013). Therefore, the philosophy of epistemology is extremely useful in the process of understanding knowledge (Saunders et al., 2009). Collis and Hussey (2009) ask what can be considered as ‘valid knowledge’ at any point in time, considering that some people believe in positivism, where knowledge is scientific in nature, and others believe in interpretivism, where knowledge is considered to be a product of a wider source of factors, context and social forms of interaction. This philosophy was considered to be essential to the research because it highlighted the issue that, when seeking knowledge from both primary and secondary sources, the perception of real knowledge and how it is created would have an impact on the decision of what to include or exclude in the research.

6.3.2 Axiology

Greener (2008) explains that axiology is important in research because it focuses on the roles that individual values play in the way research choices are made; in other words, Saunders et al. (2009) explain that axiology is concerned with the judgements that people make about value. Thus, the way people value things could influence their process of social inquiry because they could either be concerned or not concerned with certain issues (Saunders et al., 2009); therefore, the importance they may attach to the research could also be affected by the value they also attach. Collis and Hussey (2009) give an example that positivists believe that the research process is value-free, hence, their detachment or independence from the phenomena that they are researching. Using their detached approach, positivists can then assess the interrelationships of the phenomena under research, and these objects will not be affected by the actions of the researcher (Collis & Hussey, 2009). On the contrary, interpretivists believe that researchers have values that they consider when designing their research because they believe that their actions can affect the phenomena studied; hence, the facts that they gain from the research could be affected by their interpretation (Collis & Hussey, 2009). For this research, axiology was considered

crucial because the issue of talent impacts the economic fabric of the Qatari society; hence the data needed would be positivist as well as interpretivist. Without this combination, it would be impossible to develop a strategy that could be used in order to develop local talent that can transform the economy into a knowledge-based one.

6.3.3 Ontology

Fellows and Liu (2008) and Saunders et al. (2009) refer to ontology as the philosophy that relates to assumptions that are made in a conceptual reality and the question of how they exist. The assumptions made about the way the world operates have an impact on the understanding or construction of ‘reality’. For instance, Saunders et al. (2009) report that there are researchers who believe that social entities exist in reality external to social actors, which is basically objectivism. However, others believe that, “*social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence*” (Saunders et al., 2009, p.110; Collis and Hussey, 2009, p.59). For this research, ontology was deemed to be vital because there was a perception that there were assumptions based on both objectivity and subjectivity; this is because the issue of talent addresses social-cultural factors as well as performance and other economic determinants of development.

6.3.4 Philosophy of Knowledge and Current Research

Having considered the three philosophies of knowledge, namely epistemology, axiology and ontology, it was vital to apply them to the design and collection of information for this research into talent management in Qatar, as portrayed in Figure 6-2. First and foremost, epistemology influenced the design of the research philosophy whereby the use of positivism and interpretivism were seen as essential ingredients. The rationale was based on the anticipation that some of the information would be science-based, hence the need for a positivist approach. Similarly, there could be a need to engage participants in deeper clarification or discussions that are based on contextual and social interactions within the industry. Therefore, the definition of truth about knowledge in terms of creating a framework for the use of talent management in a knowledge economy depends on both philosophies of research and knowledge – see Figure 6-2.

Axiology was considered crucial to determine the sample, considering that Qataris have already been identified as a people who are content with the status quo and happy to work in the civil service. Therefore, axiology was crucial because it facilitated analysis of the sample participants and their beliefs. This could be useful in validating the research. Furthermore, ontology is applicable to the research because it allows for a statement of the assumptions that are necessary to explain the reality on the ground in transitioning the present Qatar economy into a KBE. Therefore, epistemology, axiology and ontology have had a crucial role in determining the research methodology, as explained in Section 6.5.

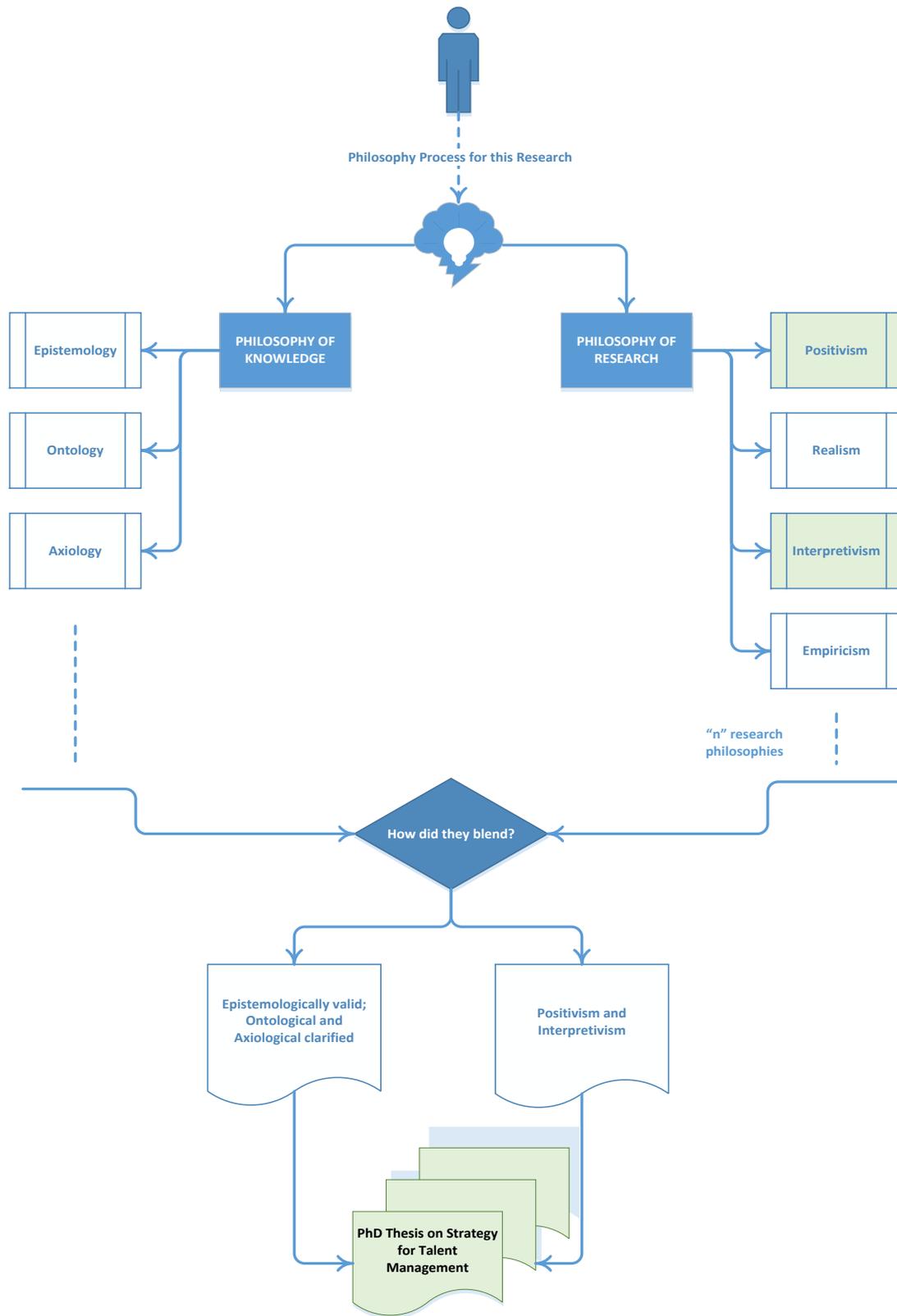


Figure 6-2: Abstraction Of The Philosophical Standing For The Research

6.4 Research Approaches

This research sets out to create a framework for talent management to support the knowledge-based economic vision for 2030 in Qatar. For this task an inductive or deductive route could be taken (Creswell, 2007; May, 2011; Saunders et al., 2009).

6.4.1 Inductive Approach

According to Singh (2006), an inductive approach is exploratory in nature; the researcher should not have any prior beliefs about the subject but should be able to construct an opinion about it. For example, Saunders et al. (2009) argue that if the researcher engages in interpretivism and is able to methodically collect as much information as possible, they would be able to draw some meaningful conclusions from the research. Figure 6-3 clearly illustrates the inductive approach. It can have as many steps as are useful; however, the main one is that the researcher is able to start the process without the theory (Saunders et al., 2009). The researcher can then go ahead and observe the data to establish patterns and develop a theory, leading to a conclusion. Were the research to adopt inductive reasoning as its main approach, it could have been difficult to establish the mainstay for the research because there was a requirement to state what the research problem was as well as establish the theoretical argument around the subject matter (Creswell, 2007). Therefore, it was impossible to adopt an inductive approach because of the need to establish the theory about the issues of talent management in Qatari industry prior to commencing further research.

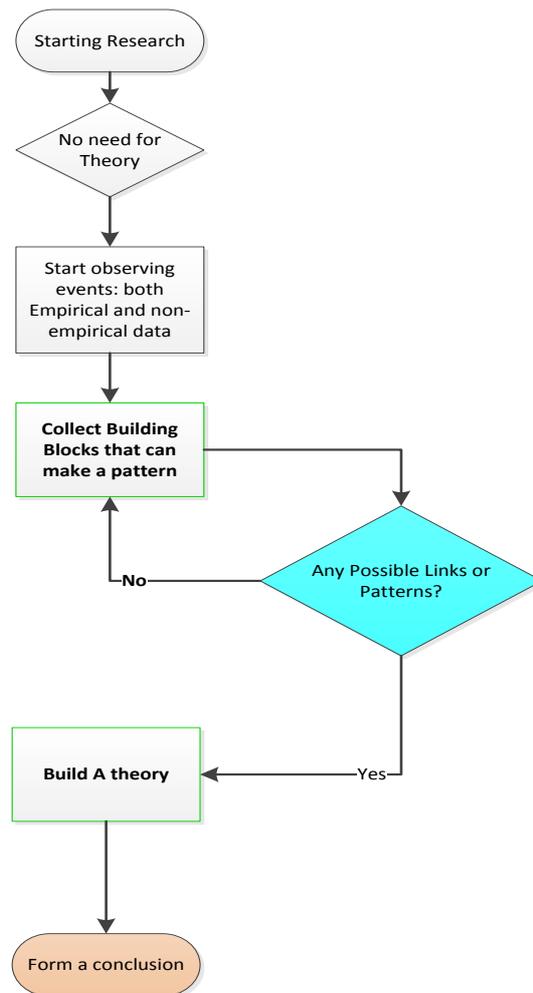


Figure 6-3: Illustration Of The Inductive Research Approach (Adapted: Saunders et al., 2009)

6.4.2 Deductive Approach

According to Naoum (2007), most research projects start with either a research question or a hypothesis. In essence, scholars create measurement yardsticks using their own perceptions of the phenomenon they are investigating so that they can return to assess how it conformed to their view (May, 2011). Testing the theory after the data collection therefore acts as a comparative analysis of what was felt to be the issue, and what the data actually reveals it to be (Fellows and Liu, 2008; Naoum, 2007).

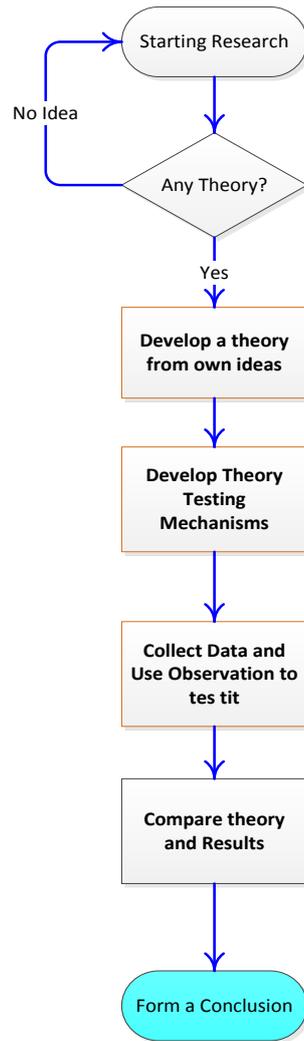


Figure 6-4: Illustration Of The Deductive Research Approach (Adapted: Saunders et al., 2009)

Figure 6-4 summarises the process that could be used to apply deductive reasoning; it leads to further understanding of the knowledge or the expansion of knowledge. Taking such an approach would be possible if positivism or interpretivism is used. For this study, it was noticed that the development of a conceptual framework coupled with a theoretical basis for talent management was critical to the evolution of the research; the criticality of the deductive approach to the research therefore became apparent from the outset.

6.4.3 Justification for Adopting Deductive Approach

From the start, this research centred on establishing clear aims, objectives and research questions – see section 1.6 – and it was felt that the deductive approach was the most reasonable way to approach the whole research. However, even though research questions had been designed, the research could still consider further information within the realms of talent management and the knowledge economy, and the way these areas of research could be used to foster human development. The research, therefore, developed its instruments based on the deductive approach. Saunders et al. (2016) suggested that the researcher could use abduction, which means starting with a mini-inductive approach to establish the main area for the research and then gather preliminary data that could be used to establish the theory – see Figure 6-1. Even though abduction can be considered ideal for some studies, the preliminary data gathered on the research was based on the then-established aims, objectives and research questions; hence, it could be justified that the deductive approach was the most technically solid system to adopt for this study (Saunders et al., 2009; 2016).

6.5 Research Methodology

Having established the philosophy of the research and knowledge, this study used the deductive approach in its reasoning. However, a methodology is seen as an overarching design or strategy for the research, which can facilitate the collection of the desired information in order to answer the research questions or address the study's aims and objectives (Creswell, 2007; May, 2011). According to Creswell (2009), there are three research methodologies that a researcher can adopt: (i) qualitative, (ii) quantitative and (iii) mixed methodology. The researcher also needs to decide on the types of strategies and methods to be used by basing their choices on the research design - see Table 6-1.

Quantitative	Qualitative	Mixed Methods
<ul style="list-style-type: none"> • Experimental designs • Non-experimental designs (survey) 	<ul style="list-style-type: none"> • Narrative research • Phenomenology • Ethnographies • Grounded-theory studies • Case study 	<ul style="list-style-type: none"> • Sequential • Concurrent • Transformative

Table 6-1: Strategies Of Inquiry (Source: Creswell, 2009)

6.5.1 Qualitative Research Methodology

According to Leedy and Ormrod (2010), a qualitative research methodology is concerned with collecting information that is mainly qualitative in nature, such as categorical data from situations that could be contextual, and features deeper explanations from respondents. Additionally, Fellows and Liu (2008) state that qualitative data relates to the way society interacts. Participants are therefore allowed to give explanations and opinions, which can then be linked to the research data gathered through the literature review. Therefore, words and opinions are extremely important in the qualitative methodology because they can help to explain the phenomena being studied (Naoum, 2007). Hence, such a methodology was considered useful when it came to interpretivism, as well as the use of deductive research reasoning, as explained in section 6.4.2

6.5.2 Quantitative Research Methodology

Fellows and Liu (2008) explain that, when research is centred on a quantitative research methodology, it is expected to collect numerical data that can be used to test a theory or that could be used objectively to manipulate variables and observe the behaviour of the phenomenon. Naoum (2007) further argues that with data in a quantitative form, causal relationships can be tested, meaning that the design of the research needs to be objective and fall under the philosophy of positivism. Thus, the

design of the research is dependent on the data collected, and the interpretation of the results is not affected by the social disposition of the researcher.

6.5.3 Justification for Adopting Mixed Research Methodology

Considering that the positivist and interpretivist philosophies were adopted in this research, and that the established research aims, objectives and research questions needed variables that could be measurable (Dawson, 2002; Fellows & Liu, 2008; Naoum, 2007), it was felt that adopting a concurrent triangulation mixed methodology would be most appropriate. The research is aimed at developing a framework for talent management to support the 2030 knowledge-based economy vision; this requires the merging different methodologies to provide a wider view and comprehensive analysis for the research problem (section 1.3), taking into account the views of both top managers and employees. The researcher collected both forms of data: qualitative through semi-structured interviews as a method for top management, and quantitative through questionnaire surveys, which targeted employees. It was, therefore, justified that the mixed research methodology could be useful for the research, and not only when collecting secondary data from the literature review process (Naoum, 2007). The rationale for this kind of reasoning was that the mixed methodology could allow the researcher to collect and analyse both qualitative and quantitative data within the same piece of research so that the analyses could complement each other. According to Creswell (2009), the mixed methods technique can include the following strategies:

- Sequential explanatory strategy: In the first phase, the researcher starts by collecting and analysing quantitative data, followed by the second phase which means collecting and analysing qualitative data that builds on the results of the quantitative data; for example, this might mean investigating more when unexpected results arise in the first phase.
- Sequential exploratory strategy: Characterised by collecting qualitative data at the first phase, followed by quantitative data collection for the second phase that depends on the result of the first phase to assist the interpretation of qualitative findings.

- Sequential transformative strategy: To better understand the particular phenomenon that is changing as a result of being studied, the researcher could initially start with either qualitative or quantitative data collection followed by either qualitative or quantitative data that builds on the earlier phase findings.
- Concurrent triangulation strategy: This involves collecting qualitative and quantitative data at the same time (in one phase) to overcome the weaknesses of using one method. The interpretations of the two databases are usually merged or compared in a discussion.
- Concurrent embedded strategy: Although qualitative and quantitative data are collected simultaneously, the secondary method addresses a different question or seeks information at a different level of investigation than the primary method.
- Concurrent transformative strategy: This is guided by the researcher's use of concurrent data collection, which depends on ideologies like theory, advocacy and theoretical frameworks. This is the 'driving force' for the methodological design.

6.6 Research Strategy

For research to be conducted, there has to be a grand, or master, plan, which ensures that the research processes tally with the philosophy as well as the methodological choices made; hence, they strive to avoid any ambiguity (Gill & Johnson, 2010; Saunders et al., 2016). Six key research strategies have been used in most studies; these include action research, case studies, grounded theory, ethnography, experiments, and survey strategies (Saunders et al., 2009). However, these six strategies could not be said to be exhaustive, and in fact, Saunders et al. (2016) argue that many more could be used. Narrative inquiry and archival research have also been considered useful in some instances (Saunders et al., 2016); however, they are not included because of the remoteness from their potential for use at the time of the justification for the adoption of the research strategy.

6.6.1 Action Research

As a research strategy, action research (AR) takes place when researchers undertake active participation in issues being researched by acting on the research side of the phenomenon, on one hand, and acting as a participant in the process, on the other (Bryman & Bell, 2011; Creswell, 2009; Sekaran, 2006). According to Coughlan and Coughlan (2002), AR is taken as a research process, which comprises the following key steps: (i) the researcher needs to undertake the work while the action is taking place at the same time, meaning that research is undertaken in action; (ii) there is an element of participation from the researcher; (iii) the action being researched and the research process need to run concurrently or simultaneously; and (iv) the process of implementing action research is sequential, starting from the first step to the third in order to ensure that the results from the research are reliable. In most cases, the issue being researched dictates the level of involvement and how the issue can be studied (Easterby-Smith, Thorpe & Jackson, 2008). This ensures that change can be effected in a systematic way due to the engagement of the research mechanism as a way that underpins that change (Creswell, 2009).

According to Easterby et al. (2008), the advantage of using action research is that it not only improves communication within the research action but is also able to set the monitoring and review mechanisms that can lead to conclusions about the quality of the research or the validity of the results. However, action research needs detailed planning, skills, and critical thinking because there could be great expectations regarding the phenomenon under research that could negatively impact the reliability of the research results (Saunders et al., 2016). As a research strategy, action research could be ideal for developing a talent management strategy; however, it could take longer to design, implement, collect and analyse information while participating in the strategies used in the Qatari construction industry. Therefore, the process of implementing action research was envisaged to be the major inhibiting factor for its adoption in this study, even though it has an element of practicality in the way it can be conducted (Collis & Hussey, 2009; Gill & Johnson, 2010; Naoum, 2007).

6.6.2 Grounded Theory

According to Creswell (2007), grounded theory, as a research strategy, develops and analyses theories based on the collection of information through experiences and the like. Once the data has been collected from established research respondents, it is possible to develop theories, hence the reference to grounding the theory based on data collected (Bryman & Bell, 2011). The process of adopting grounded theory could be likened to a situation where the researcher collects the data due to their perception of a phenomenon, and are then able to establish a theory based on what they have seen from their sample, or on the varied respondents in the study (Creswell, 2009). This does not imply that every theory can be grounded or proven; rather, there has been an argument that theories can be grounded if there is information from the field, whether from participants or observations, that includes the social context that may surround the data collection (Creswell, 2009).

Nevertheless, by adopting such an approach, grounded theory tends to generate theory based on action and any issues of collaboration between a varied level of respondents whose variety becomes a source of critical data to the theory (Verd, 2004). The key determinant of grounded theory is data; this means that the researcher merely follows the patterns from the data as they analyse and develop a theory from them, hence the terminology of ‘grounding’ a theory. For this research, a grounded theory strategy would require observations to be made in real-time, and that various theories would be developed to see how talent is being developed for the KBE Vision 2030. Developing such a theory could take many years and exceed the timeframe prescribed for this research, making it suitable for this study (Crotty, 1998).

6.6.3 Ethnography

According to Creswell and Garrett (2008), the application of ethnography, sometimes referred to as ethnomethodology, relies on the premise that there is a social connectivity between people in any situation. There is also an argument that the interconnectedness of people may take various forms, either through language, intentions, feelings, experiences, signs, or the like, for as long as these factors form the norms (Atkinson & Hammersley, 1994; Creswell, 2007; Hanson, Creswell, Clark,

Petska & Creswell, 2005). From the research strategy perspective, ethnography strives to clearly understand the mode of connectivity between people and how the interpretive attributes of such groupings can be used to understand or explain the issues under research (Creswell & Tashakkori, 2007). As a research strategy, ethnography relies heavily on the adoption of a qualitative research methodology where the researcher considers attributes, such as beliefs and culture, the nature of social grouping and commonalities within these attributes, to undertake a cross-tabulated view of the group (Hanson, et al., 2005; Hayes, 2000). The researcher would have to undertake critical observations, interviews and so forth to assess the language and/or the relationships within the culture of the group, otherwise it could be impossible to understand the meaning of many elements of the grouping (Creswell & Garrett, 2008).

There are many strands to the strategy of ethnography, meaning that theories, such as feminism, functionalism, cultural studies, and postmodernism, are branches of ethnography in general but taken to the extremes for which they are committed to examining (Creswell & Garrett, 2008). It implies that ethnography can allow a researcher to strategise in terms of how they undertake cultural-related research from a particular section of society (Creswell, 2007; Creswell & Garrett, 2008; Creswell & Tashakkori, 2007). For this research, it was felt that, even though the issue of talent was highly significant within Qatari society and culture, it could be extremely difficult to design the research based on ethnography because of the complexity associated with talent management theory. Such a strategy would have made building objectivity into the research design difficult.

6.6.4 Experiments

The research strategy of experiments, according to Saunders et al., (2009; 2016), takes place when there is a need for a controlled environment that can be used as a means to test a theory based on specific procedures. Some of the variables would be independent while others would be dependent and from this the relationships can be tested using a predetermined procedure (Ross & Morrison, 2004). Once the theory has been established, experiments can be used to design a highly valid procedure to test it;

the result could also be subject to external validity and reliability testing (Ross & Morrison, 2004). Such a strategy, however, was deemed too restrictive when considering the issue of talent management and human development in general; this is because the experiment would need a long time to test and the results would take a minimum of 5 to 7 years to collect. There are many elements that relate to the positivist nature of experimentation, and this could have been ideal for the research because of the high level of validity of the results; however, the nature of the subject matter does not lend itself to the research strategy of experiments. The experiment strategy was discounted from the research on these grounds.

6.6.5 Survey and Justification for its Adoption

According to Gill and Johnson (2010), surveys are a research strategy that require the use of pre-set questions in order to solicit opinions from sampled respondents about the phenomenon under study. Surveys can take many formats but the common element can be the way questions are presented and how the answers can be interpreted, analysed and represented to the audience (Creswell, 2009; Fellows & Liu, 2008). As a strategy, a survey allows the process of gathering data from individual to individual, and there is no guarantee that the response from the two individuals could be the same (Okoli & Pawlowski, 2004), making it an attractive form of research strategy because it targets individual opinions that can later be generalised to the population from which the respondents were taken (Creswell, 2007; Krosnick, 1999). Depending on the design of the survey, it offers high levels of versatility that can allow the researcher to capture many areas of concern in order to build good instruments for data gathering in an inexpensive manner but with large numbers of participants (Forza et al., 2002).

The survey strategy was therefore considered to be the most appropriate research strategy because it aligned well with the research philosophies of positivism and interpretivism. Additionally, the research approach of deductive reasoning aligns well with the survey; this is because the established theories concerning talent management were considered useful in designing the data collection protocol, securing ethical approval as well as establishing the strategy for data analysis.

According to Robson & McCartan, (2016), questionnaire surveys can be administered in three main ways:

- Self-completion. When the questionnaire is sent out (via post, by hand or online) and the respondent fills in the answers by themselves.
- Face-to-face interviews. The researcher asks and fills in the questionnaire on behalf of the respondent.
- Telephone interview. The researcher calls the respondent to ask them the survey questions and records the responses.

Furthermore, internet surveys are becoming more popular for carrying out surveys, which in turn guarantees anonymity and data security.

6.6.6 Case Studies

A case study is a research strategy that acts not only as a strategy to undertake research but also as a method of collecting data (Voss, Tsiriktsis & Frohlich, 2002). It is a strategy that allows researchers to select an area of interest and concentrate on it by deeply by analysing all of the elements and without really taking part in the case they are researching (May, 2011; Saunders et al., 2009; Voss et al., 2002). The major difference between a case study and action research is subtle but significant in that in action research, the researcher takes part while, at the same time, undertaking the research (Coughlan & Coughlan, 2002). In contrast, Coughlan & Coughlan argue that case studies do not allow the participation of the researcher. As a strategy, the case study offers the researcher an opportunity to undertake a detailed or thorough review of the case from many angles; the level of comprehensibility of the research can therefore only be inhibited by the researcher's imaginative and ethical limitations (Coughlan & Coughlan, 2002).

A case study can also allow for the collection of both qualitative and quantitative data, making it versatile for researchers (Ivankova, Creswell & Stick, 2006; Yin, 2009). However, the strategy is limited to the number of cases that can be studied because it could need to detail the studies in a unique manner. Generalising or drawing inferences from case studies can also be extremely difficult because of the dissimilar

nature of cases (Yin, 2009). For this research, it was felt that the case study was not the most optimal strategy to be used, mainly because it was difficult to identify any cases that could be linked to the development of a talent management strategy in Qatar. As a result, the strategy of case studies was discounted.

6.6.7 Other Research Strategies

Depending on the issue at hand, it is possible for researchers to engage in other forms of research strategy (Creswell, 2009). This choice is dictated by the focus of the research; for instance, if a study focuses on individuals and their experiences, the strategy could lean towards experiential research and phenomenology.

6.7 Time Horizons

According to Saunders and Tosey (2012), the researcher has the potential to decide how long it can take for research to be conducted, with the time allowed for presenting the results. By so doing, they are taking the time horizon for the research in either cross-sections and/or longitudinally (Saunders et al., 2009; 2016). Saunders states that the most important factor is that the resources for undertaking the research and the speed with which the results are needed usually dictate the time horizon for a study.

6.7.1 Cross-sectional Time Horizon

Cross-sectional time horizons were explained by Saunders and Tosey (2012), and Saunders et al. (2016) and shown in Figure 6-1; such a time horizon means that the researcher has taken what they called a 'snap-shot window' of the issue in order to gather information within that window to reach conclusions on the research. For instance, if the research examines a case study on a particular issue, it implies that the time period it takes to undertake a deep analysis of the case study would form a cross-sectional time horizon for the research. For this research, there have been time constraints from the onset due to the academic regulations of the university; therefore,

a cross-sectional time horizon was found to be the most appropriate for the research in order to abide by the university regulations.

6.7.2 Longitudinal Time Horizon

A longitudinal time horizon is the opposite of a cross-sectional time horizon because it strives to ensure that the researcher can take as long as possible in order to address the research problem (Saunders & Tosey, 2012). Saunders and Tosey also state there is no need to rush data collection, and neither is there a rush to deliver results, meaning that the time it takes for research to be conducted is not important. Because of the restrictions on the time period for this study, the longitudinal method was deemed inappropriate.

6.8 Research Technique (Methods)

Saunders et al. (2016) state that ‘research technique’ is the term given to the methods and procedures that are used to operationalise the process of collecting data from respondents for analysis. These are also referred to as research instruments because they are used to act as the interface between the researcher and the respondents by allowing the researcher to collect the information needed to answer the aim, objectives and research questions (Creswell, 2007; Fellows & Liu, 2008; Naoum, 2007). The decision to select the technique for the collection of primary data needs to be aligned with the research philosophy, the knowledge philosophy, research approach, research strategy and the methodological choice (Saunders et al., 2016) otherwise the process could create invalid data and unreliable results. For this research, the process of collecting secondary data was conducted through a literature review, as supported by the research approach. For primary data collection, the alternatives are as follows:

6.8.1 Interviews

According to Robson & McCartan (2016), interviewing, as a qualitative research method, involves the researcher who poses the questions to the interviewees.

Interviews are commonly, but not strictly, face-to-face and one-to-one. There are three types of interview:

- Fully structured. This is a questionnaire with fixed questions, where responses are selected from a small list.
- Semi-structured. Allowing some flexibility between the researcher and the interviewer. The order of the questions could be modified based on the flow of the interview; in addition, unplanned questions could be asked.
- Unstructured. Allowing the interviewee to be much more flexible, where they can say whatever they want.

Interviewers can engage in deeper probing discussing, which can provide more flexibility and depth than a questionnaire; this is because interviews have inherent dynamism. The researcher can adapt questions if they want to have a closer view of what people think and how they might comment without being restricted (Denscombe, 2010). If conducted well, an interview can lead to the clarification of facts; it can be flexible and easier to conduct and the accuracy of the data can be good (Stangor, 2011). According to Denscombe (2010) there is a possibility that an interviewee could provide more analysis from a variety of issues discussed, hence allowing an insight into the matter at a deeper level. However, if there is no proper planning, the interviewee could be biased; thus, the limitations for the process of collecting data through interviews are as follows (Naoum, 2007): (i) the time it takes, for example, too long; (ii) poorly trained interviewers; (iii) can be costly and allows for a smaller sample as a result.

For this research, the researcher conducted semi-structured interviews (Appendix A) to allow for further investigation via follow-up questions and thus better understand the research issue. The interviews examined 24 top managers who had relevant experience about the research topic, and decision makers who had an influential impact on the Qatari National Vision 2030. The researcher targeted the Ministry of Education, the Qatar Leadership Centre (QLC), ICT Qatar, the Ministry of Administrative Development Labour and Social Affairs, the Ministry of Development Planning and Statistics, Qatar Petroleum and infrastructure development firms, such as the Qatar foundation, which have a high degree of influence on Qatar's economic growth.

6.8.2 Questionnaire Survey

Questionnaires allow researchers to gather opinions from on a list of questions that are linked to the researcher's questions and objectives (Naoum, 2007). If the design of the questions allows for flexibility, or if the audience has been studied well, Stangor (2011) feels that questionnaires can achieve a lot from respondents. Denscombe (2010) and Dawson (2007) explain that there are times when open-ended questions are necessary to undertake a deeper examination of issues, but also stress that closed-ended questions can be used effectively, which are meant to limit the scope for respondents to consider. This emphasises that, as questions are asked, the researcher needs to take into consideration their desired form of analysis as well as the philosophy they have adopted.

6.8.3 Observation

Saunders et al. (2009) argue that observation is a method used to study and examine the core of social settings and how people act to make sense of their environments by participating in their lives and activities. Although it is a complicated method to analyse data (May 2011), it brings new ways of viewing the social world, and if it is well performed, it can help to develop understanding and assist in human actions. Therefore, observing events within the process of creating a strategy for talent management was essential for collecting primary and secondary data for the research.

6.9 Questionnaire Design

The questionnaire (Appendix B) was designed to address the research hypothesis (section 1.7). The literature review guided the researcher to design the questions to serve the interests of the research aim. The survey questionnaire was divided into four sections as follows:

- **First Section: General Information about the Respondents**

General information about respondents (Table 6-2) was included in the questionnaire in order to validate the respondent sample with regards to their industrial role, academic qualification, gender, nationality, and the type of organisation they worked for at the time of the survey. These factors were

crucial for the research to establish the validity of the respondents before admitting their responses.

General Information	Nationality(Qatari/ Non Qatari)
	Gender
	The category of your organisation
	The sector you work in:
	Your Degree
	Time since the organisation was established
	How is your organisation getting funded
	Number of training you received in last one year

Table 6-2: Section One: (General Information)

- **Second Section: Qatar National Vision (QNV 2030)**

The research background in Chapter One and the theoretical framework in Chapter Two highlighted the roots and importance of the national policies that are driving the government of Qatar to develop its Vision for 2030. Policies have been established in Qatar that are anchored on social, cultural, and political as well as human development theories. The theoretical framework in Chapter Two (Table 6-3) shows that it is also useful to address the perceptions of the Vision 2030 plan from the perspective of the current economic prospects for local Qataris. This section was explored under section two of the questionnaire.

Qatar National Vision (QNV 2030), (GSDP, 2012)	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy
	In your opinion, how does Qatar intend to achieve the Vision 2030?
	What actions is your organisation taking to achieve the Vision 2030
	Which challenges are confronting the actualisation of QNV 2030 within your organisation?
	Your company rely on business from the oil and gas sectors of the economy
	The government should incentivise organisations to achieve Qatar National Vision 2030
	The organisation should incentivise the employees of various organisations to work towards the achievement of QNV 2030
	You are motivated to develop yourself in the organisation to become a leader
	Local Qataris can fully support initiatives aimed at transforming Qatar’s economy from one heavily reliant on oil and gas to KBE

Table 6-3: Section Two: Qatar National Vision 2030

- **Third Section: Knowledge-Based Economy (KBE)**

Chapter Three of the literature review focuses on how an economy could be transformed from one based on industrial activities of any kind to one which could be centred on knowledge. The processes of a knowledge-based economy and how it could be built up from learning organisations that engage knowledge workers were considered crucial for section three of the questionnaire and the interview templates. This section featured questions (Table 6-4) on how organisations perceived the process of achieving a KBE, thereby assessing the level of operationalisation of the QNV 2030 at the organisational level. Chapter Four of the literature review focuses on learning, and how a knowledge worker could be developed. The literature examined the role of organisations and the workers in terms of synergising the development of employees with improved production.

Knowledge Based Economy (KBE)	Professional practice within your organisation is keen to implementing Knowledge management through knowledge creation and sharing. (Nonaka and Takeuchi, 1995; Nonaka et al., 1996)
	Your organisation is keen to implementing organisational learning at all management levels of the company (Huzzard 2004, p350).
	knowledge based economy could be valuable for Qatar to gain competitive advantage (Kamrava, 2012; Kamrava, 2012a)
	What are the problems related to knowledge retention?
	What could be the factors causing local Qataris to be disinterested in taking the leading role in their organisation and disinterested to perform or work?(GSDP, 2012)
	Your organisation ignores individual knowledge and experience in favour of ICT and systems. Osman (2014, p6)
	Your organisation provide a mechanism for employees to learn from each other regardless of the management level. (Jones, 2008; Le and Bronn 2007, p150).
	The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves. Ramirez et al., (2012, p168):
	The reliance on knowledge could be valuable for Qatar to gain competitive advantage (Kamrava, 2012; Kamrava, 2012a) ,(GSDP, 2012)
	How can the dependence on knowledge be supported in your organisation? Zhao et al., (2013, p902)
	Rate the importance of the listed factors to support the achievement of a knowledge-based economy in Qatar.(De Vos and Dries 2013, p1816), (GSDP,2012)
	Qatar cities are designed to support a sustainable economy. Ka-Lun (2012, p294)
	The culture in your organisation allows for creating knowledge (Kamrava, 2012; Kamrava, 2012a)
	Leadership and authority are available to support the scope of the Qatar natioal Vision 2030. (Chan and Mills 2011, p170).
New technology plays a supporting role in the Vision 2030. Osman (2014)	
Your organisation creates knowledge that is worth capturing and sharing within the economy. Ramirez et al., (2012, p168):	

Table 6-4: Section Three: Knowledge-Based Economy (KBE)

- **Fourth Section: Talent Management**

Chapter Five examined the theory of talent and how the management of talent (the knowledge worker) was critical to a KBE. Therefore, the literature

discussed in Chapters Four and Five were essential to the development of the questions in section four (Table 6-5) of the questionnaire, which asked for information on ‘talent management strategies that support organisational learning’.

Talent Management (Tarique & Schuler, 2010), (Nilsson & Ellstrom, 2012), (GSDP, 2012)	What is your position in your organisation?
	NOTICE: THIS SECTION IS ONLY FOR CEO, DIRECTOR, STRATEGIC MANAGERS
	Human resource development could be valuable for Qatar to gain competitive advantage
	Qatari organisations do not use “talent management” in nurturing and developing local talent
	what competencies are used to identify key talent?
	Qatari organisations feel that the responsibility of identifying local talent lies with
	To what extent do you think your organisation has identified the behaviour and skills needed to support your strategic objectives
	Talent management is important to having a knowledge- based economy that supports Qatar National Vision 2030
	Your organisation have a human resource development (HRD) strategy
	Your organisation pick people to develop as future talent for the company
	Your organisation have a talent identification programme
	Your organisation have a strategy to develop their talent
	A framework or plan is required to run the business for Knowledge Based Economy (KBE)
	Your organisational strategy motivate the workforce for the Vision 2030

Table 6-5: Section Four: Talent Management

The literature review focussed on synthesising the issues raised from Chapters One to Five to amalgamate them into a coherent view of a knowledge-based economy that could be fostered by human development efforts centred on talent management. Therefore, all of the recommendations from the literature about the KBE and talent management were turned into specific questions that respondents could comment on under the last question of the questionnaire to give the respondent the freedom to highlight major points that could be used to answer the research questions and hypotheses as well as develop a framework that could be used in Qatar. Thus, it was crucial to use the literature review to inform and design the questions (Fellows & Liu, 2008) used in the questionnaire and in the interview templates.

6.10 Sampling

According to Sounderpandian (2008), the research could adopt the following sampling techniques:

- Simple random sampling where each participant has an equal chance to participate by ensuring that the population is identified within Qatar and then a sample obtained.
- Stratified sampling whereby the samples of the population are grouped before sampling is performed. In this case, the construction industry could be sectioned in accordance with the professions or types of companies, then the samples could be obtained from the strata.

There was also a possibility to adopt non-probabilistic sampling, which Denscombe (2010) refers to as techniques that do not require probability, and this includes:

- Quota sampling that allows a sample in accordance with the categorisations;
- Purposive sampling where participants are hand selected;
- Snowball sampling where everyone has a chance of being selected.

At the commencement of the research, the most realistic technique was stratified sampling with a target of over 500 research participants from an unknown population of workers in the Qatari economy. The justification for choosing a sample of (n) 400 was because the total number needed to produce statistically reliable results and be seen as a critical benchmark for setting the target sample (Sounderpandian, 2008).

6.11 Ethical Considerations

For any research project, there are ethical issues that need to be addressed before undertaking the collection of primary data (Bryman & Bell, 2011; Greener, 2008; Saunders et al., 2016). This implies that, prior starting the data collection from industries in Qatar, there was a need to address ethical considerations and secure approval from within the university. The main divers for the ethical factors were as follows:

6.11.1 Anonymity

Anonymity was highly prioritised in the research process in order to make sure that no personal information was requested from the respondents (Gill & Johnson, 2010). In so doing, the researcher was able to assure respondents that they could participate fully without fearing that their identity might be revealed (Greener, 2008). An ethical approval form was developed and submitted in line with the university guidelines (Appendix C). The questionnaire and interview templates accompanied the ethical approval process.

6.11.2 Consent to participation

The sampled respondents were entitled to a procedure that could provide evidence that they had consented to participate in the research (Easterby et al., 2008; Fellows & Liu, 2008; Naoum, 2007). Therefore, a consent form (Appendix D) was designed to ensure that there was an opportunity to not only ensure participants could consent to participate in the research but also to provide assures that they could withdraw from the research at any point and without consequence. The form provided information about the research as well as assurances as to how the data collected would be used.

6.11.3 Confidentiality of results

From the onset, the research demonstrated that the problem which had driven the study was based on the gap in the operationalisation of the Qatar National Vision 2030 in terms of developing local talent. Because the issue has been topical in GCC countries, the level of sensitivity to the issue is not as significant as it might be (Greener, 2008). Although confidentiality was not central to the design of the research data-collection instruments, good research practice demanded that confidentiality was upheld, hence the ethical and consent forms used did not gather any personal data from the respondents. It also meant that the questionnaire and interview template designs did not ask particularly personal questions that could have led to the respondents being identified. Hence the research process highlights a procedure that promoted participation and reduced any perceptions of a lack of confidentiality.

6.12 Strategy for Data Analysis

According to Gill and Johnson (2010), the strategy for data analysis depends heavily on the design of the data-collection tools, the anticipated data from the sample, and the necessity for a high level of reliability in the results. Analysis of the data involves presenting and reviewing its meaning, and this includes explaining any patterns that emerge (Hussey & Hussey, 2009). For this research, it was envisaged that the analysis could either be conducted using a qualitative or a quantitative approach. Additionally, there was a perception that both methods would be suitable.

6.12.1 Qualitative Data Analysis Using Thematic Models

A qualitative analysis of the results would have taken into account not only descriptive statistics presented in graphs and diagrams (Black, 2010) but also the ability to critically examine the interpretation of the results and explain the meanings behind the data (Creswell, 2009). This form of data analysis therefore resonates with the philosophy of interpretivism (Saunders et al., 2016) because it strives to narrow down the significant information to how they were issued by respondents as well as their meaning. In qualitative analysis, themes can be developed from the data; hence thematic modelling becomes a crucial element of the analysis (Bryman & Bell, 2011; Gill & Johnson, 2010).

For this research, it was possible to obtain qualitative data from both the questionnaire surveys as well as the interview surveys. The themes from the primary data were standardised in accordance with the questions asked as well as the issues that respondents were trying to address. However, to guarantee participant anonymity, interviewees were given codes so that their personal details were not presented as part of the primary data.

6.12.2 Qualitative Data Analysis Using ISM

For the researcher to undertake a critical analysis of the themes that make up a knowledge-based economy, it was vital to synthesise the literature in Chapters One to

Five. This research therefore implemented interpretive structural modelling (ISM), which is explained in detail in Chapter Nine of this thesis.

According to Thakkar, Kanda and Deshmukh (2008), ISM is a qualitative modelling tool that is used to assess the relative influence that factors may have on each other. This could mean the assessment of interrelationships between factors that form part of the issue(s) under investigation (Thakkar et al., 2008). ISM development involves the following steps:

- Step 1: Developing a structural self-interaction matrix (SSIM) using expert opinion;
- Step 2: Converting the SSIM into an initial reachability matrix;
- Step 3: Developing the final reachability matrix;
- Step 4: Level partitioning;
- Step 5: Classifying the factors;
- Step 6: ISM Diagram

Figure 6-5 summarises the application of ISM, which is based on the contextual setting that the team set out (Singh, Shankar, Narain & Agarwal 2003). The contextual relationship is chosen so that a single variable could be linked to other variables resulting in a hierarchy that are viewed as interlinked (Singh et al., 2003).

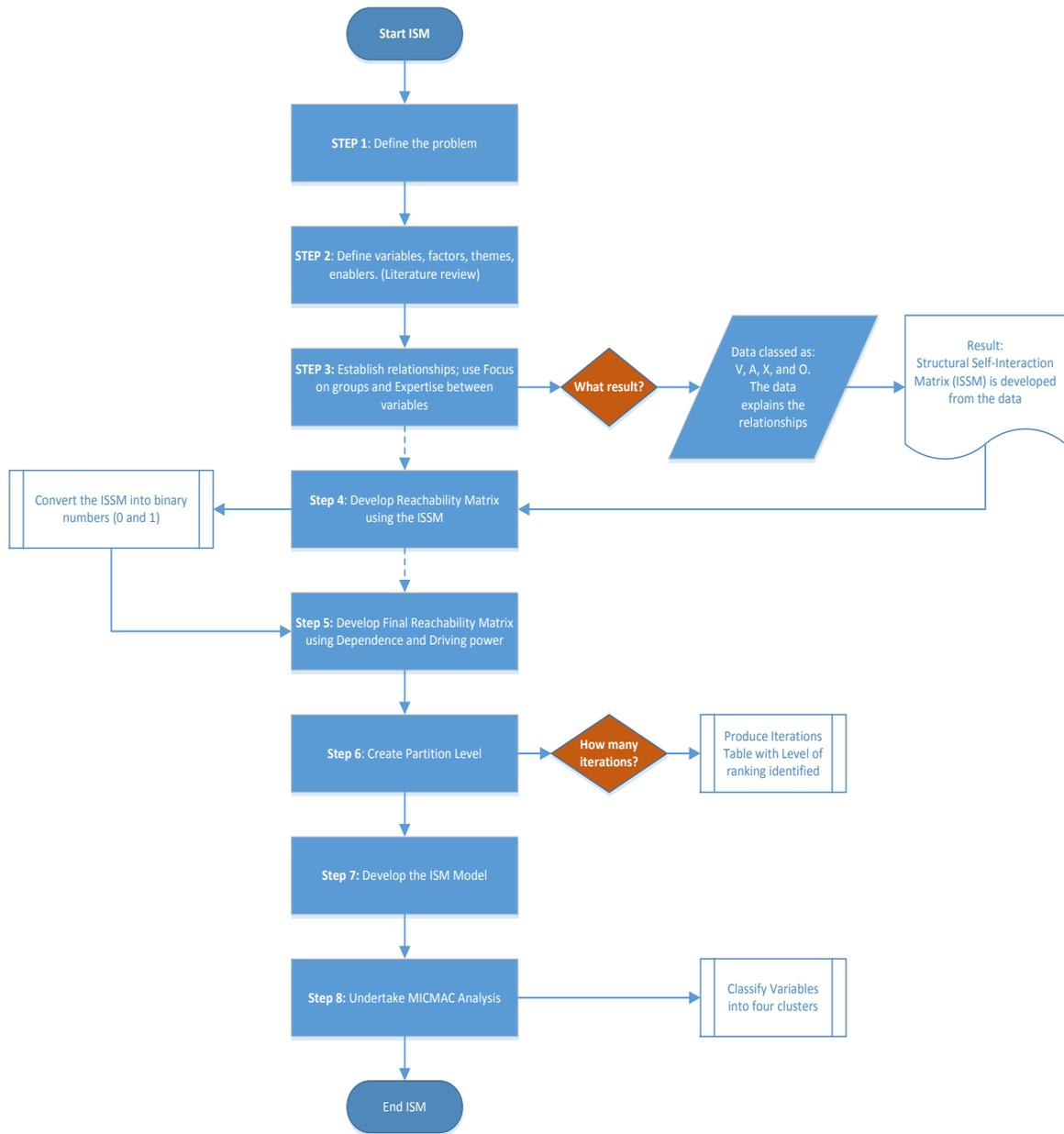


Figure 6-5: Sequence Of Applying The Interpretive Structural Model

6.12.3 Quantitative Data Analysis Using Non-Parametric Statistics

According to Bryman and Bell (2007), quantitative analysis relies heavily on quantitative data to test the theories established prior to the data collection, with the aim of reaching a conclusive point to either approve or disapprove those theories. This has been the case for the research because the hypotheses and research questions formed the basis for the theories. Non-parametric statistical analysis, such as regression analysis, chi-square testing of associations or independence, and cross tabulation (Black, 2010), could therefore be used as a way of establishing the overall

picture of issues gathered from respondents regarding talent. The quantitative data analysis was implemented through SPSS (Statistical Package for Social Sciences). The rationale for deploying SPSS was to ensure that it could capture as much data as possible to undertake as many permutations as possible and create the meaning behind the data in comparative terms (Black, 2010). According to Blaikie (2003), data are classified as shown in Table 6-6.

Type	Description	Categories	Example
Nominal	A set of categories for classifying objects, events, or people, with no assumptions about order	Categories are homogeneous, mutually exclusive and exhaustive	Marital status, religion
Ordinal	As for nominal-level measurement, except the categories are ordered from highest to lowest	Categories lie along a continuum but the distances between them cannot be assumed to be equal	Likert scale
Interval	A set of ordered and equal interval categories on a contrived measurement scale	Categories may be discrete or continuous but with arbitrary intervals and a zero point	IQ score, Celsius scale
Ratio	As for interval-level measurement	Categories may be discrete or continuous but with an absolute zero.	Age, income

Table 6-6: Type Of Data Source (Blaikie, 2003, p.27)

6.13 Design for Testing Hypotheses using Quantitative Data

According to Black (2010), the data available to the researcher dictates how the statistical analysis will be performed. The basic level of data obtainable from the results of the questionnaire survey of this research has been ordinal and categorical in nature (Moore, 2010). The values of the data were ‘labels’ in part as well as categorical (Moore, McCabe, Alwan, Craig & Duckworth, 2011) hence the central theme of the analysis could be centred on descriptive statistics using bars and graphs

as well as non-parametric statistical testing (Sounderpandian, 2009). The ultimate reason for adopting non-parametric statistical testing to underpin this research has been the ordinal nature of the data, which facilitated the ranking of the data using categories (Heiman, 2011). This implies that stringent assumptions about the population (N) for the research are not warranted (Sounderpandian, 2009), hence the sample (N) would provide the necessary outcomes to conclude the research. Therefore, Sounderpandian explains that the commonly held views and assumptions of ‘normal distribution’ would not be necessary in this regard. Before the implementation of the non-parametric statistical analysis of the data, it was imperative to undertake deeper examination of the relationships between the responses using correlation (Black, 2010; Heiman, 2011).

6.13.1 Examining Data Relationships Using Correlation and Multiple Regression

According to Pallant (2005), it is possible to explore the strength of the relationship between variables of different sets of questions in order to gather an indication of the general direction of the relationship, should there be one. The ideal tools for the exploration of the relationships between the data variables were correlation, (Black, 2010; Moore, 2010) and linear or multiple regression analysis (Pallant, 2005).

6.13.1.1 Correlation coefficient

Heiman (2011, p.136) states that a correlation coefficient is, “*the descriptive statistic that, in a single number, summarizes and describes the important characteristics of a relationship*”. The outcome – called the correlation coefficient value – “*quantifies the pattern in a relationship, examining all X–Y pairs at once*” (Heiman, 2011, p.136). There is no other means by which a statistic can be used to explain the complex relationships between variables in as simplified a manner as the correlation coefficient (Black, 2010; Heiman, 2011). This means that the preliminary interpretation of relationships between variables of different questions can be made possible using a single statistic. According Moore et al. (2011) the correlation r between variables for x and y is determined using the following mathematical model, shown in Equation 6-1.

$$r = \frac{1}{n-1} \sum \left(\frac{x_i - \bar{x}}{s_x} \right) \left(\frac{y_i - \bar{y}}{s_y} \right)$$

Equation 6-1: The Correlation Mathematical Model (Moore et al., 2011, p.93)

According to Moore (2010) there are four key areas of interest with the correlation statistic:

- (i) The correlation coefficient statistic (r) does not distinguish between independent and dependent variables, meaning that it does not matter which variable is called X and which is called Y; the outcome is the same;
- (ii) The correlation coefficient statistic (r) uses standardised values of the observations, meaning that the statistic r would not change with the changes in the units of measure that is allocated to the variables. It implies that variables X and Y are neutral when it comes to measurement units – it can take any unit of measure, such as kilogrammes, metres and the like, as the statistic r would be the same;
- (iii) When the outcome of statistic r is a positive value, it becomes an indication that there is a positive relationship between the variables, and when statistic r has a negative outcome, it indicates that there is a negative relationship between the variables;
- (iv) The correlation coefficient statistic (r) is always a number between minus one (-1) and positive one (1); however, if the value of r is near 0, then it can be an indication of a very weak linear relationship (Moore, 2010). On the contrary, “*the strength of the linear relationship increases as r moves away from 0 toward either -1 or 1* ” (Moore 2010, p.107). When the data is plotted on a scatter plot, values of r close to -1 or 1 indicate that the points in a scatterplot lie close to a straight line. “*The extreme values $r = -1$ and $r = 1$ occur only in the case of a perfect linear relationship, when the points lie exactly along a straight line*” (Moore 2010, p.107).
- (v) The following rules of thumb for describing the size of the correlation coefficient (r) are a measure to determine the size of an effect; Cohen (1988) gives the following:
Small effect = .10, Medium effect = .30, Large effect = .50

6.13.1.2 Gamma statistic as a precursor to multiple regression

Gamma statistics are based on a comparison of respondents to see if the tested variables are concordant or discordant (Blaikie, 2003). Tabachnick and Fidell (2013) suggest that when a survey adopts categorical data, responses should be on at least a seven-point scale. However, at the time of designing the survey, five-point scales were deemed acceptable. To resolve this potential weakness in the data capture method, it was necessary to undertake and report using gamma statistics as a precursor to multiple regression. The gamma statistic is particularly useful for testing the association between two variables when there are likely to be a large number of tied ranks (Siegel & Castellan, 1988). One problem with the above gamma statistics is the non-independence of relationships between variables. It could therefore be suggested that gamma statistics are useful as a precursor to multiple regression analyses, instead of the Pearson's r correlation coefficients, which would usually be presented (Moore et al., 2011). This is primarily because gamma statistics would be reasonable in the present circumstances where the Likert scale has five points within variables (Siegel & Castellan, 1988). It was, therefore, justified that gamma statistical analysis was conducted on the data as a precursor to multiple regression. For this research, gamma statistical analysis was undertaken using SPSS, and the results indicated in section 7.10.1, as a precursor to multiple regression. Gamma ranges from -0.1 to +0.1 (Blaikie, 2003).

6.13.1.3 Multiple linear regression analysis

Pallant (2005, pp.95-6) stated that multiple regression is, “*a more sophisticated extension of correlation*”, which can be useful when there is a need to “*explore the predictive ability of a set of independent variables on one continuous dependent measure*”. Therefore, the rationale for the choice of multiple regression is to ensure that it could be possible to compare the, “*predictive ability of particular independent variables and to find the best set of variables to predict a dependent variable*” (Pallant, 2005, pp.95-6). Moore et al. (2011) explained that correlational analyses are usually presented as a precursor to multiple regression analyses because they play the role of descriptive statistics, which help to provide a context for considering regression coefficients. Therefore, although Tabachnick and Fidell (2013) imply that the use of multiple regression analysis may be problematic when scales have fewer

than seven points, it was thought useful to conduct multiple regression analyses to test whether the different independent variables mentioned in each hypothesis were independently predictive of the different dependent variables. The use of multiple regression analysis would be ideal because this would cut down the number of analyses performed and (more importantly) test whether relationships between independent variables and the dependent variable in any given analysis were independent.

To ensure that multiple regression statistics are not biased, it is usually taken to be important to ensure that residuals in an analysis are normally distributed (and it is fairly easy to assess whether this is the case using SPSS). Where residuals are not normally distributed, one of two courses of action is usually recommended: a) transforming the variables; or b) bootstrapping (Pallant, 2005).

6.13.2 Chi-Square Test of Association

According to Sounderpandian (2009), the use of non-parametric statistics has been essential in situations where the stringent assumptions a study should make about the population are not really needed, hence the issue of normal distribution does not need to be included. Non-parametric statistical tests are therefore useful for handling categorical (or nominal) data (Sounderpandian, 2009), especially in the case where the level of association or dependency between the categorical responses to two sets of questions can be assessed (Black, 2010). The Chi-square test of association or independence is one such statistical method that falls into the category of non-parametric statistical tests; it shows the probability value of the level of association or independence between variables (Black, 2010). Moore et al. (2011) stated that the level of significance – alpha (α) – could be said to mean the area in the tail of the Chi-square probability distribution curve. In most cases, the p value of 0.05 is the standard benchmark for accepting with confidence that there is some form of association and or independence. This means that the area in the tail is 0.05, and this is also called the ‘rejection region’ (Moore et al., 2011). If the final value of the test falls in the rejection region, it is possible to reject the null hypothesis. The critical point, therefore, should be obtained from the Chi-square table, and it separates the tail (rejection region) from the rest of the curve, indicating the demarcation.

This critical value is a Chi-square value since a Chi-square test is being used, in the 0.05 area (column) in the Chi-square table. It is therefore possible to see the critical value, associated with the degree of freedom from the row of the table (Black, 2010; Sounderpandian, 2009). The following steps are therefore standard to the application of a Chi square test (Sounderpandian, 2009):

- (i) State the null hypothesis (H_0) and the alternative hypothesis (H_1)
- (ii) Choose the level of significance (α)
- (iii) Find the critical values
- (iv) Find the test statistic
- (v) Draw the conclusion.

The mathematical model used for Chi-squared testing is shown in Equation 6-2; however, for this research, SPSS data analysis tables using cross-tabulation were used in order to reduce the cumbersome nature of manual calculations (Sounderpandian, 2009).

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

χ^2 = the test statistic \sum = the sum of

O = Observed frequencies E = Expected frequencies

Equation 6-2: Chi-Square test of Independence of Association Formula (Sourced: Sounderpandian, 2009)

Decision-making is determined by the critical value from the Chi-square table; this means that if the test statistics are more than the critical value, the conclusion would be to reject the null hypothesis (Sounderpandian, 2009). On the contrary, if the test statistic is less than the critical value, the conclusion to draw would be that the null hypothesis cannot be rejected (Sounderpandian, 2009).

6.14 Reliability

Greener (2008) defines research reliability as the degree to which research can be consistent over a time period; this implies that a study's level of repeatability over a

time period would be an essential attribute of the research design because it offers clarity and transparency as to how the process was undertaken. Greener argues that once the reader is able to see the attribute of repeatability, they would develop confidence in the research because they can see that the results have not been manipulated (Greener, 2008). Fellows and Liu (2008) support this view by stating that, if the research is replicated, it needs to demonstrate that it could produce similar results regardless of who undertakes the repeated process. Once there is consistency in the findings, the research can be said to be highly reliable (Saunders et al., 2009). However, if there is an element of preferential bias from the researcher or if the design of the research is subjective, it could be difficult to achieve a high level of reliability; hence, the results could not be replicated (Saunders et al., 2009). The impact of poor reliability concerning research is that such studies may not be useful to the reader and could easily be discarded as flawed and therefore not generalisable to the population (Black, 2010; Fellows & Liu, 2008).

Cronbach's Alpha is commonly used to test reliability. The alpha coefficient ranges between 0 and 1; $\alpha < 0.5$ indicates that data is not reliable while an alpha figure closer to 1 indicates a high level of consistency. Table 6-7 presents the value indicators for the alpha coefficient that the researcher used with SPSS to calculate values for Cronbach's alpha.

Reliability	Cronbach's Alpha Value
Highly Reliable	$\alpha \geq 0.9$
Good	$0.9 > \alpha \geq 0.8$
Acceptable	$0.8 > \alpha \geq 0.7$
Questionable	$0.7 > \alpha \geq 0.6$
Poor	$0.6 > \alpha \geq 0.5$
Not Reliable	$\alpha < 0.5$

Table 6-7: Compiled From Blaikie (2003)

For this research, the process was deemed to be highly reliable because there was a deliberate decision to use both qualitative and quantitative methods for data collection, data analysis, and the critical examination of both sets of data. This was

suggested by Greener (2008), who stated that triangulation was one of the main strategies that a research design should adopt in order to produce reliable results.

6.15 Validity

Validity, according to Greener (2008), is the degree to which the results from a study can have face validity, construct validity and internal validity. In other words, the three angles for validity are concerned with the assurance that the findings of a study are a true reflection of what they really appear to represent (Saunders et al., 2009). Face validity refers to face-value validity from non-researchers who, according to Greener (2008), can express that the results of a study are valid based on the way the process has been designed. Face validity is vital to ordinary people and research participants because it can promote their participation in the research if they can believe that on face value the research design and process is valid. Construct validity, on the other hand, refers to the degree to which the research process can measure what it aimed to measure (Greener, 2008). The implication of construct validity for the research lies in the way decisions are made with regards to the design of the data collection tools as well as the data analysis process (Greener, 2008). If the decisions are justified and can be confirmed to be the case, then the research process could be said to be highly construct valid. Construct validity is fundamental to the design of questions (Fellows & Liu, 2008); if the wrong questions are asked, the measurement of the data could be invalid (Greener, 2008).

Internal validity tests causality between variables, meaning that there are times when the results could be linked to clear causality between variables, and situations where there can only be association between variables (Greener, 2008). According to Saunders et al. (2009), validity can be at risk if a researcher presumes that their work must tally with the historical findings in their field. Other factors include the way the testing of results is carried out as well as the instruments used in the testing process (Saunders et al., 2009). They also observed that if there are dropouts in terms of research respondents from a particular sample, the research result must be invalid, or the questions designed for collecting the research data were ambiguously designed (Saunders et al., 2009).

For this research, the design of the research process was made transparent, from the research philosophies used to the data analysis tools and designs employed. For this reason, key steps – such as the use of interpretive structural modelling (ISM) as a tool to model the key areas of the subject matter of knowledge as well as the use of a preliminary survey prior to the issuance of the final survey questions – have all been vital steps to assure the validity of the research process. The results from the research are therefore envisioned to be highly reliable and valid due to the transparent nature of the research process undertaken.

6.16 Research Process

The summary of the research process used in this project has been abstracted in Figure 6-6. Firstly, it shows that the philosophy of interpretivism and positivism were established in the design of the instruments for data collection; secondly, the preliminary data collection using interviews was critical to creating a base for the research. In this way, the application of the grounded theory was a possibility at this phase. Thirdly, after the interview data collection, it was possible to develop the questions that could be useful in developing a model for creating the strategy for talent management in Qatar using the construction industry as the vehicle for testing the theories. Fourthly, data triangulation was conducted after the questionnaire survey results were analysed, creating a basis for which conclusions and answers to research questions were to be tested.

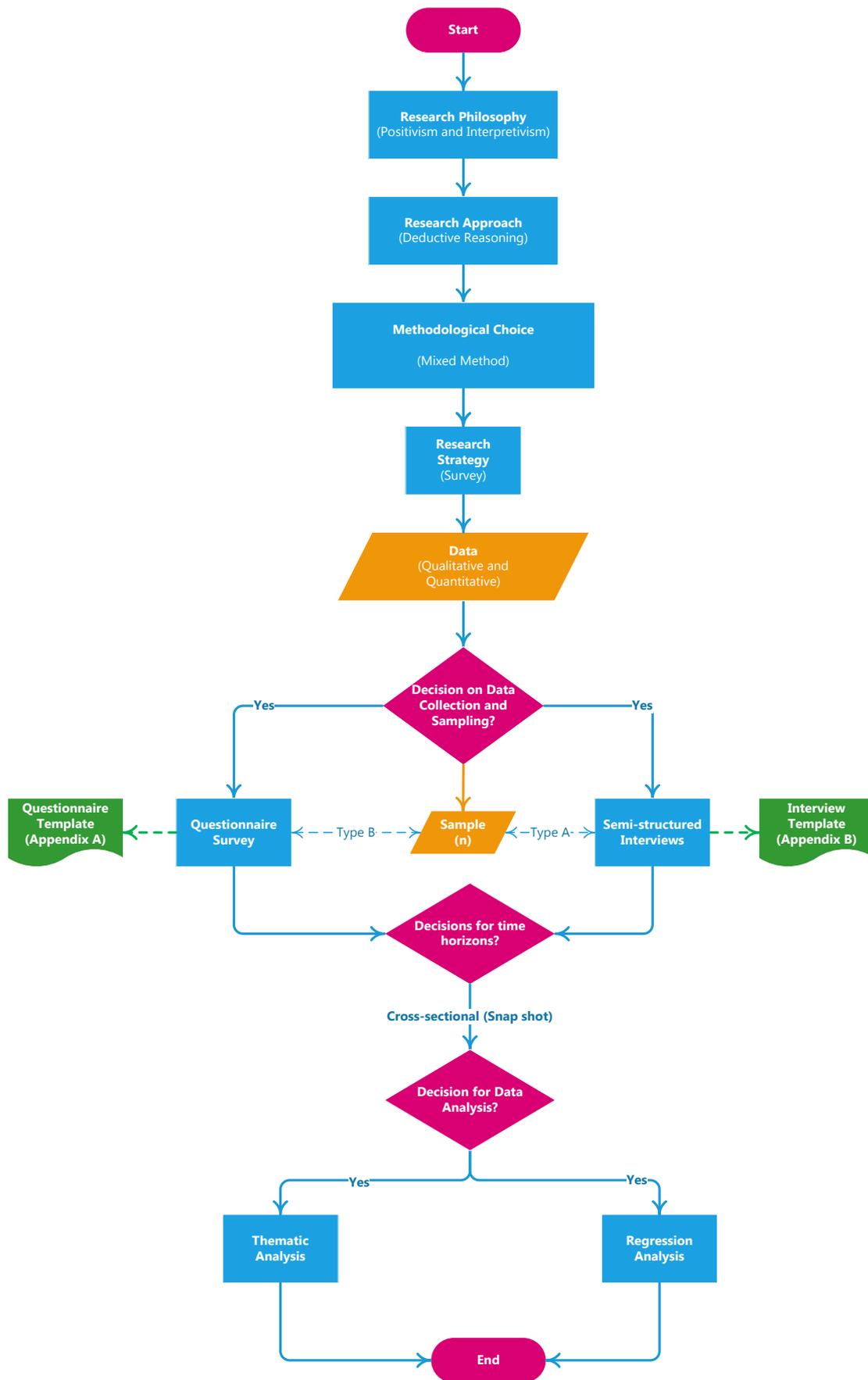


Figure 6-6: Sequence For The Research Process

6.17 Summary

This research methodology explained and justified the methods used to collect the primary information required for this research. Positivism and interpretivism, as research philosophies, were used as both qualitative and quantitative methodologies in gathering and analysing the data. Deductive reasoning was also felt to be useful considering that the issue of talent management within Qatar is not clearly known; hence, where necessary, it would be ideal to review the theories and redevelop them as and when information becomes clearer.

7 CHAPTER SEVEN: QUANTITATIVE DATA ANALYSIS

7.1 Main Sections of Chapter Seven

This chapter analyses the quantitative data using descriptive statistics as well as non-parametric statistics. It comprises nine major sections and their respective sub-sections. These are as follows: (i) examining the general information from respondents; (ii) evaluating the economic prospects for Qatar, as perceived by respondents; (iii) examining the processes of achieving a KBE; (iv) analysing the processes for talent management; (v) undertaking analyses for hypothesis 1; (vi) examining the data for hypothesis 2; (vii) examining the data for hypothesis 3; (viii) introducing multiple-linear regression on the nine key drivers; and (ix) introducing multiple-linear regression on strategic behaviour.

7.2 Introduction

For the research to establish a framework for talent management that could support the 2030 KBE vision for Qatar, it was envisaged that both qualitative and quantitative data would be sought, as explained in section 6.3.3. From the outset, the design of the data collection was influenced by the qualitative nature of the subject (Gill & Johnson, 2010); however, the questions used to collect the primary information had categorical data sections in the form of Likert scales (Black, 2010; Bryman & Bell, 2007; Hussey & Hussey, 2009). This chapter therefore undertakes quantitative analysis of the primary data collected from the questionnaire survey (see section 6.9), which was designed and distributed electronically via SurveyMonkey.com. This sub-section is structured as follows:

- Descriptive Analysis
 - Section One: General information about the respondent
 - Section Two: Current economic prospects based on QNV 2030
 - Section Three: Achieving a knowledge-based economy
 - Section Four: A talent management strategy that supports a KBE

- Non-Parametric Analysis
 - Chi-Square Test;
 - Pearson's and Spearman's Rank;
 - Gamma Test;
 - Multiple Regression.

The questionnaire survey (Appendix A) was designed to have four sections, namely: (i) general information about respondents; (ii) current economic prospects based on Vision 2030; (iii) achieving a knowledge-based economy; and (iv) talent management strategies that support a KBE. Even though the questionnaire survey was split into these four sections, there were a mixture of questions; some had categorical data sets through Likert scales while others did not. The chapter also undertakes a detailed analysis of the results using both descriptive statistics (Black, 2010) and non-parametric statistics (Moore et al., 2011). Descriptive statistics were useful to present the information in graphical form to back up the data analysis and presentation of the results. On the other hand, non-parametric statistics were useful because it allowed the use of categorical data to compare responses as well as predict the prospective impact of the results at influencing the research outcomes (Moore et al., 2011).

As stated earlier in section 6.13, the research adopted SPSS (Statistical Package for Social Sciences) to undertake a detailed quantitative data analysis using non-parametric statistical techniques, which were the Chi-squared test, Pearson's and Spearman's Ranks, Gamma, correlation coefficients, and multiple regressions. In order for the research data to maintain high levels of validity and reliability (sections 7.15 and 7.14 respectively), the questionnaire targeted organisations that highly are involved in developing strategies for Qatar's KBE, which were: the Ministry of Education; Ministry of Development Planning and Statistics; Ministry of Development Administrative Labour and Social Affairs; ICT Qatar; and the Qatar Foundation, which is responsible of research and development and infrastructure projects. Section Four of the questionnaire was restricted to chief executive officers, managers, directors and academics because it was envisaged that respondents who worked in strategic positions were expected to implement and operationalise the Vision 2030 policy (QNV, 2030) in their respective organisations. The chapter

concludes that for the Qatar Vision 2030 to transform the economy into a knowledge-based one, there would be a need to undertake a holistic re-focusing of talent management within the economy.

7.3 Section One: General Information about Sampled Respondents

General information about respondents was included in the questionnaire in order to validate the sample of respondents with regards to their industrial role, academic qualification, gender, nationality, and the type of organisation they worked for at the time of the survey. These factors were crucial for the research to establish the validity of the respondents before admitting their responses. A total of 284 respondents participated in the online survey. Considering that 400 respondents working in assorted industries of Qatar were targeted, 284 completed surveys represent a response rate of 71%, which is significant for this type of research.

Question 1 asked respondents to state the category that best described their national status with regards to Qatar. Only two options were given for the question: the first was national, whilst the second was non-national but working in Qatar. This question was designed to set the parameters for the research, which focused on creating a roadmap for talent management to support the infrastructure for Qatar's vision of a knowledge-based economic by 2030. The responses in Figure 7-1 show that 69.4% of the respondents (197) had Qatari nationality while 29.2% (83) were Non-Qataris working in the country in various positions. There is a missing value of 1.1%.

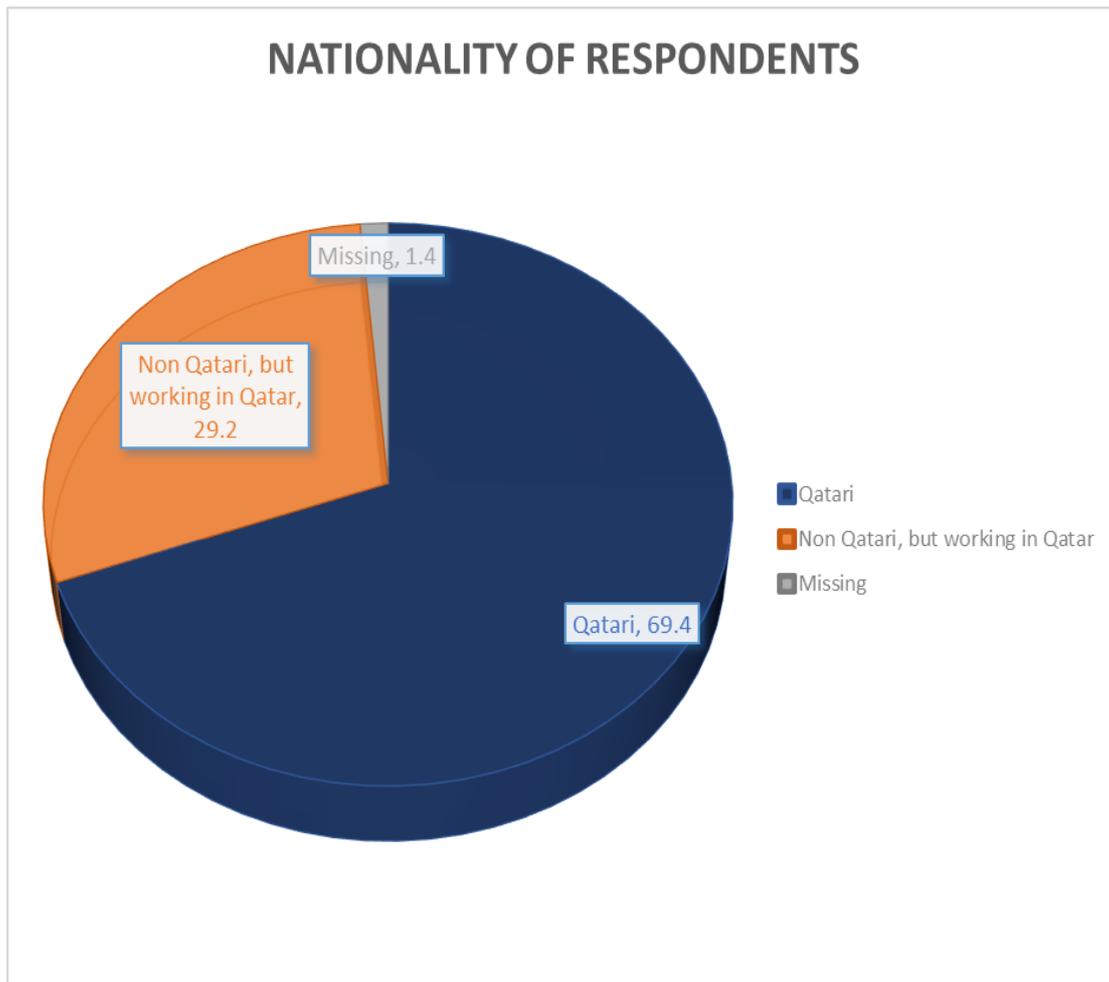


Figure 7-1: Testing The Nationality Of The Respondents At The Time Of The Survey (Question 1)

As well as the nationality of the respondents, it was important to determine their gender considering the cultural importance of balancing gender and the role that respondents of each gender play in the economic wellbeing of a nation. As a result, Question 2 gave respondents a multiple-choice to choose their gender, and Figure 7-2 shows that 39.1% of the respondents (111) were female while 59.9% were male (173). Based on these figure, represented in Figure 7-2, it can be seen that male respondents outnumbered their female counterparts; inevitably the pattern of response mimics the general trends in the work place in Qatar where men outnumber women. The reasons for such a trend are beyond the scope of this research. However, it can be argued that culturally men and women have different roles in Qatari society; hence there are fewer females in formal employment.

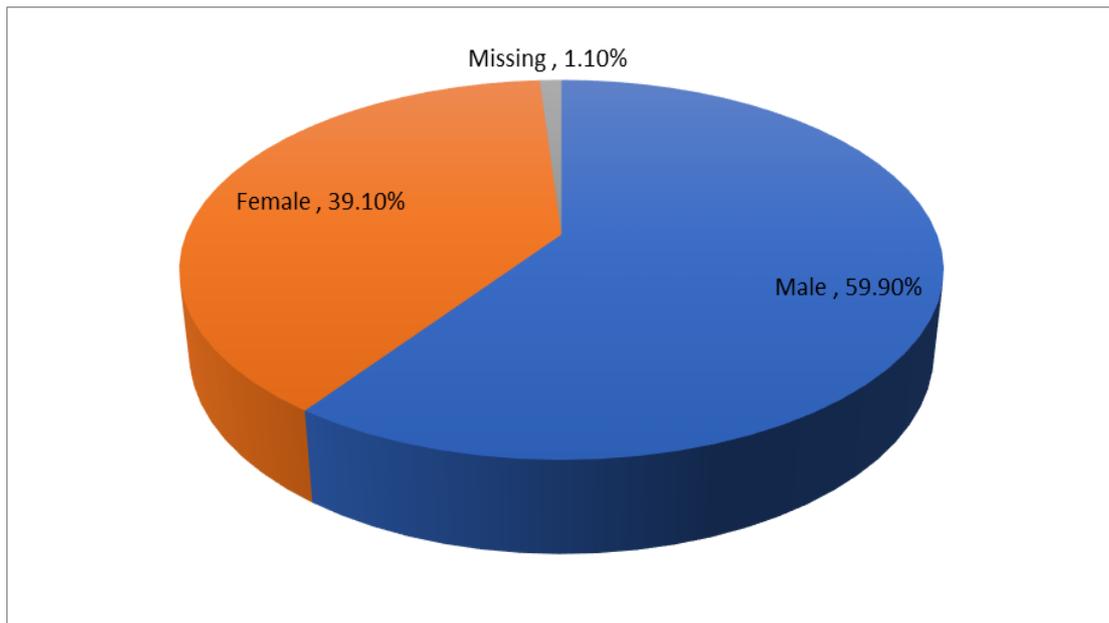


Figure 7-2: Gender Classification For The Respondents (Question 2)

Under Question 3, respondents were asked to state the sector that categorised their organisation at the time of the survey. It was possible to request industrial typology at this stage; however, it was prudent to present this question within a framework suitable for research regarding the government's Vision 2030 strategy. As such, the most ideal categorisations were (i) government; (ii) purely private; and (iii) quasi-government. The responses to this question in Figure 7-3 show that 66.2% of the respondents (188) worked for government-owned institutions; 25.4% of respondents (72) worked for a quasi-government organisation; while 7% of the respondents (20) worked for a purely private institution. The categories of respondent highlight the key role that the government plays concerning the job market in Qatar; this is because it does not have the largest base for employees but owns many businesses that are controlled by managers that are not attached to the government. This implies that, because the government is an investor in many sectors, there could be a high level of expectancy from policy makers that government initiatives have larger impacts on the Qatari community, including the job market.

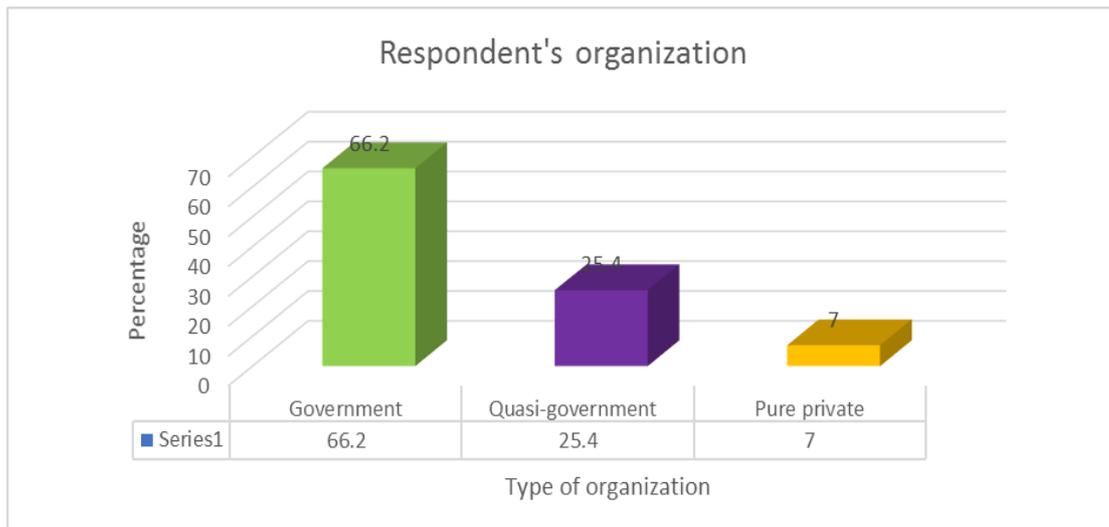


Figure 7-3: Sector That Categorises The Organisation In Which The Respondents Worked (Question 3)

Question 4 asked respondents to state their general categorisation of the organisation in which they worked by industrial sector, and of the 284 total respondents, 113 did not answer this question. As a result, only 171 respondents stated their industrial sector. Figure 7-4 shows that 14.8% of the respondents worked in the real estate, construction and engineering sector; 14.1% worked in the information and communication technology industry; while 7.7% worked in the culture, arts and heritage industry. The education sector accounted for 6.3% of the respondents while the energy and hydrocarbon industry (oil and gas) represented 4.9%. Municipal and urban planning workers constituted 2.8% of the respondents while the environment sector had 3.5%. The finance sector accounted for 2.8% of the respondents. Endowment and Islamic affairs accounted for 2.1% of the respondents, while the economy and commerce sector represented only 0.7%. Defence personnel accounted for 0.4%. The survey therefore covered a wide range of sectors, which could be assumed to enhance the reliability of the responses. Of the 39.8% of people who did not complete this question, most (31% of the total responses) came from the Ministry of Administrative Development, which was launched in 2014 during the research period. The others worked in the general customs authority, the Ministry of Sports and Youth, the media, Ashgal (the public works authority) and Qatar Rail.

Considering that Question 3 shows that 67% of the respondents worked in the government sector, it was possible to correlate the results with Question 4 because there are many industrial sectors where only the government could offer a service. For instance, the municipality and urban planning, the Ministry of Administrative Development, endowment and Islamic affairs, the education sector, and the oil and gas industries, are some of the areas where the government has long been a key provider. Therefore, it can be argued that the responses to questions 3 and 4 tally in many ways because the most pronounced sectors were those where the government has invested heavily.

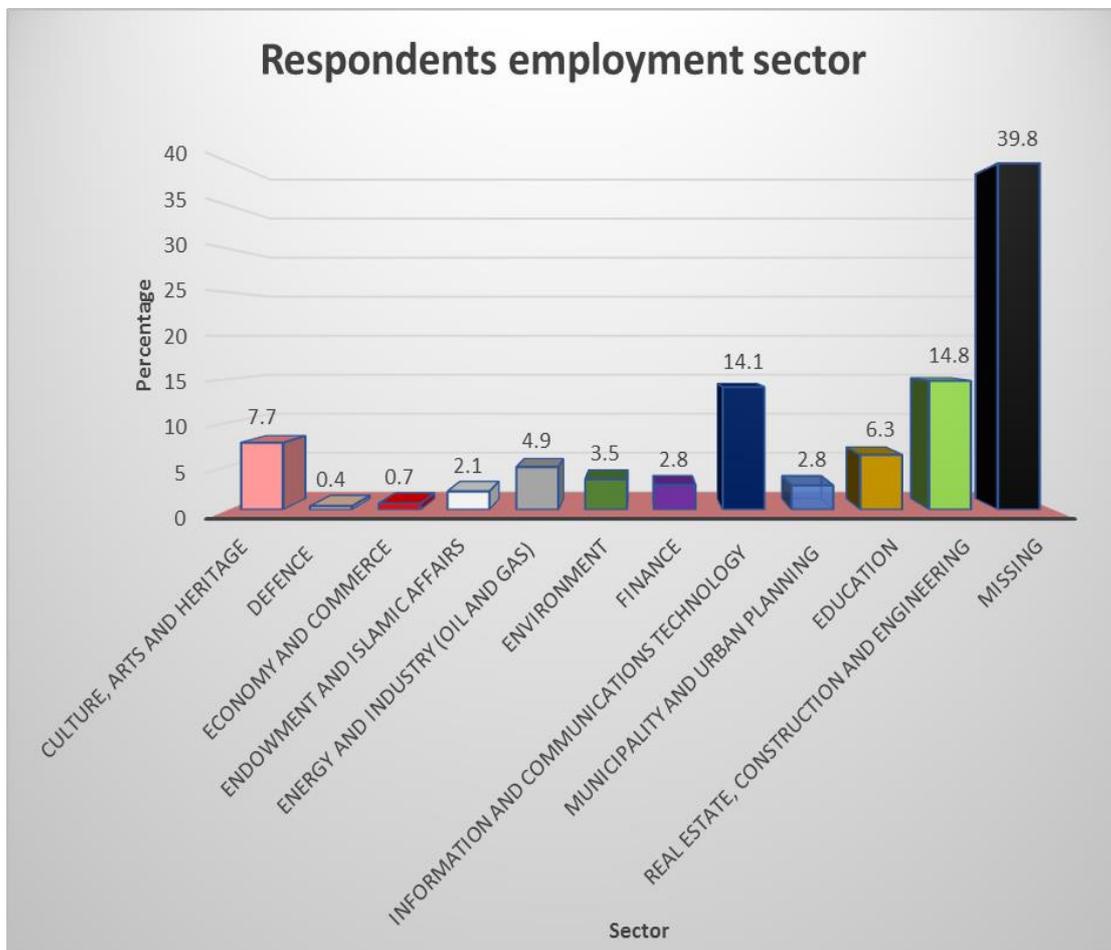


Figure 7-4: Industrial Categorisation Of The Respondents (Question 4)

The other vital issue, apart from the sector categorisation, was the level of education and/or academic qualifications that the respondents had at the time of the survey. It was observed in the literature review that developing a KBE required a highly educated workforce at many levels. However, assessing such an issue would imply

that the question had to be designed to cover as many factors as possible. Therefore, Question 5 asked respondents to select their highest level of qualification at the time of the survey. The results in Figure 7-5 show that 52.1% of respondents (148) had a bachelor's degree as their highest level of academic qualification, whilst 23.6% (67) had a master's degree, and 9.9% (28) had a high school qualification. Only 6% of the respondents (17) held a doctor of philosophy degree. Some 6.7% of the respondents (19) had a diploma as their highest qualification at the time of the survey.

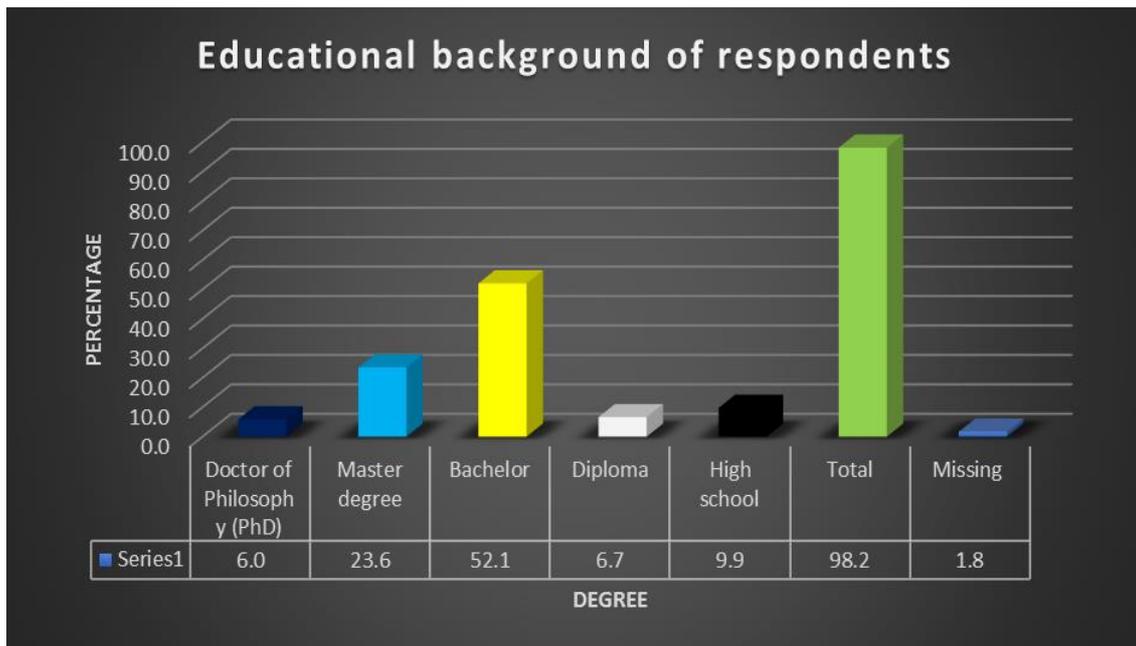


Figure 7-5: Highest Level Of Qualification That Respondents Had At The Time Of The Survey (Question 5)

The number of respondents with a high level of qualification was positive in that it suggested that the policy implementation should not be a problem for Qatar to develop into a KBE. However, people have to use their education to develop a KBE based on the drivers set by the government through the provision of the 2030 Vision. However, the reality, in many cases, has been the level of experience that a nation possesses as it develops a critical mass for a knowledge-based economy. Therefore, Question 6 asked respondents to state the approximate length of time since their organisation was established. If the organisation was established more recently, it was more likely to apply some of the policy framework embedded in the Vision 2030. The results summarised in Figure 7-6 indicate that 34.32% of the respondents (93)

believed that their organisation was created less than 5 years ago; 26.20% (71) believed that their organisation was established between 6 to 10 years ago; while 17.34% (47) believed that their organisation had been operational for over 20 years. Only 12.18% of the respondents (33) felt that their organisation had been running for between 11 and 15 years, while 9.96% (27) were of the view that their organisation had been running for as long as 16 to 20 years. The responses shown in Figure 7-6 therefore imply that the number of new firms established has increased over the past 20 years; these tend to blend with firms that have existed for longer periods. This could also imply that there are some government departments that have been created relatively recently in order to serve the developing economic needs of the country.

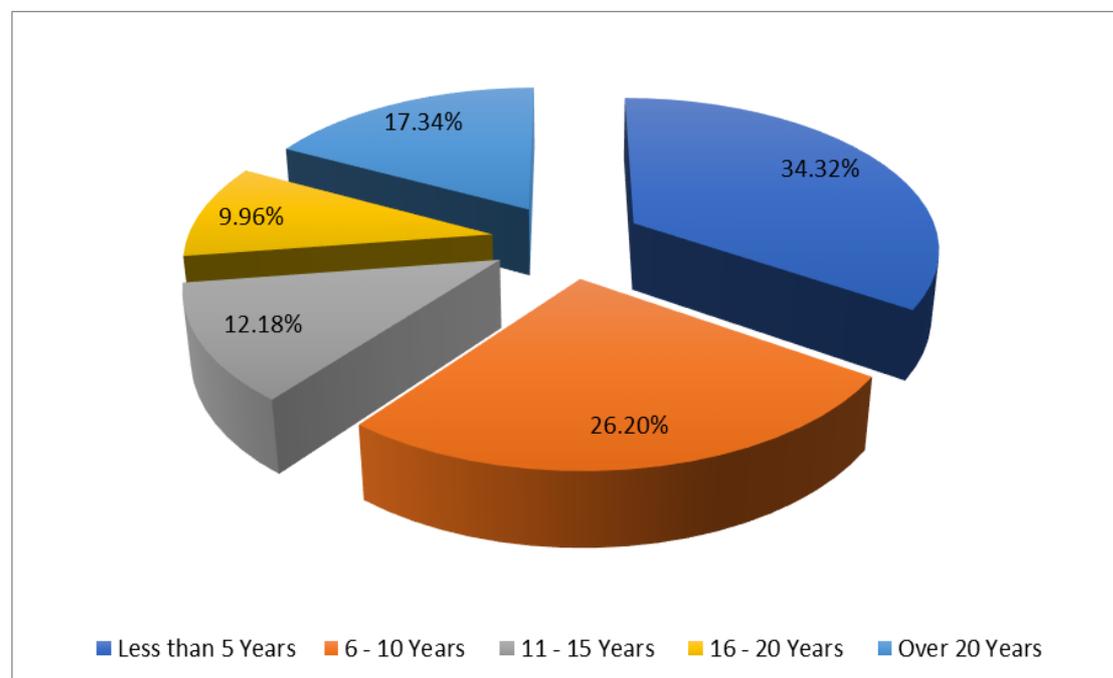


Figure 7-6: Approximate Length Of Time Since The Organisation Was Established (Question 6)

Apart from ascertaining the time when organisations were established, it was crucial to assess their source of funding; therefore, Question 7 asked for respondents to state how their organisations were funded. The rationale for this question was to establish a link between management, funding and the legal status of the organisations involved. All of these factors are necessary to establish the reasoning behind the structure of the organisation and how it may be influenced to deal with knowledge and talent.

The response in Figure 7-7 shows that the government funded organisations were where 85.09% of the respondents (234) worked, while private investors funded 6.91% (19) of the respondents. However, another 6.55% (18) had no idea as to the source of their organisation's funding. Only 1.45% of respondents (4) were of the view that their sources of funding were international investors.

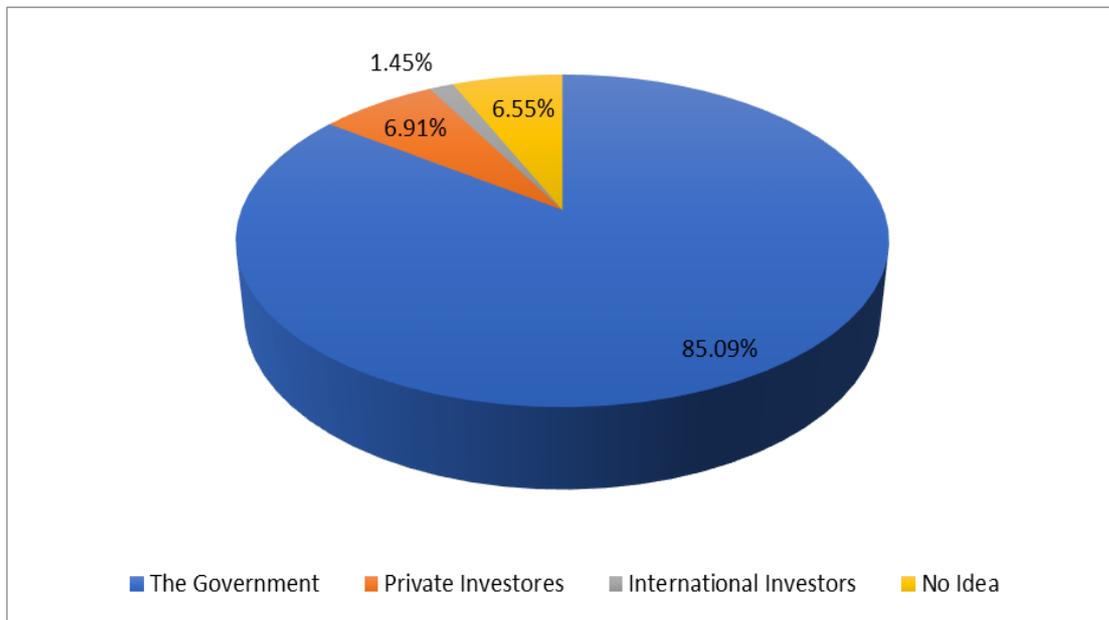


Figure 7-7: Source Of Funding For The Organisation (Question 7)

Comparing the responses to Questions 6 and 7, it can be seen that the government has been establishing many organisational units serving various interests. There were also many respondents who stated that, as a department, they had been self-funding their activities; others believed that there was a combination of both private and government funding for their activities. The other issue was that not all firms were operating to make profit; some private, non-profit-making organisations were serving the government and the private sector. This meant that their activities were based on quasi-government activities but that they did not need funding from the government because they were self-sustaining.

In Question 8, respondents were asked to state the number of training sessions they had received in the last year at their organisation. The importance of training in the workplace has been found to be central to the development of knowledge as well as the ability to harness talent so that there can be concerted effort to develop a KBE.

The response, which has been summarised in Figure 7-8, shows that 35.38% of respondents (98) had not received any form of training in the last year, whilst 23.47% (65) had undergone training once, and 15.88% (44) had undergone training twice in the last 12 months. Some 13.72% of respondents (38) had undergone training four or more than four times in the last year, while 11.55% (32) had undertaken training on three occasions in the last twelve months.

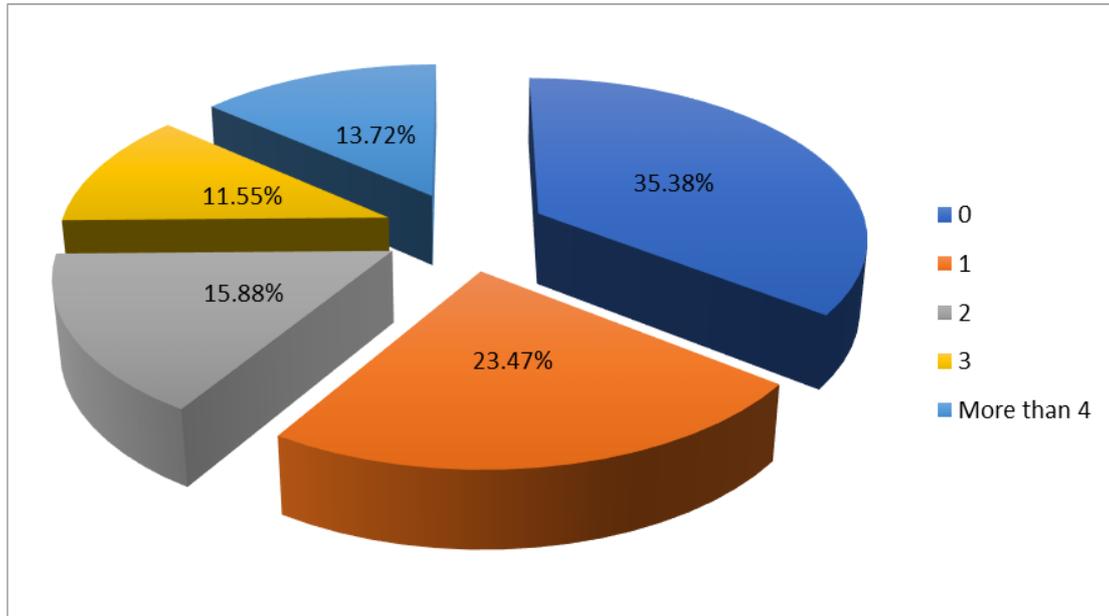


Figure 7-8: Number Of Times That Respondents Have Undergone Training In The Last Year (Question 8)

7.4 Section Two: Current Economic Prospects Based on Vision 2030

The second section of the questionnaire concentrated on questions that could lead to a detailed understanding of perceptions about Vision 2030 and how it could influence the strategic reaction from companies in Qatar. It was envisaged in the literature that attaining a KBE would require substantial application of the national vision, so this section therefore had questions and statements that used a Likert scale of 1 to 5 where 1 stood for strongly disagree; 2 for disagree; 3 for neither agree nor disagree; 4 for agree; and 5 for strongly agree.

Question 9 asked respondents to state their perception of the argument that the Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with the view to sustaining the economy. The rationale for this question/statement was to establish any link between Vision 2030 and the economic prosperity of the citizenry as the nation moves towards a knowledge-based economy. The response has been summarised in Figure 7-9, where 43.8% of the respondents (92) agreed with the question and 42.9% (90) strongly agreed. However, 11.9% of the respondents (25) neither agreed nor disagreed, only 1 person disagreed (0.5%), and 2 (1%) people strongly disagreed. Of the 284 research participants (n) in the sample, only 210 participants answered this question, meaning that 74 (26%) respondents skipped it. As this is a significant number, it became necessary to assess the possible category of people that skipped the question. Further analysis found that non-nationals working in Qatar accounted for 83 such respondents; this means that respondents with a non-national designation could made up the 26% of people that skipped this question. However, the response was significant enough to maintain the high level of reliability of the survey results.

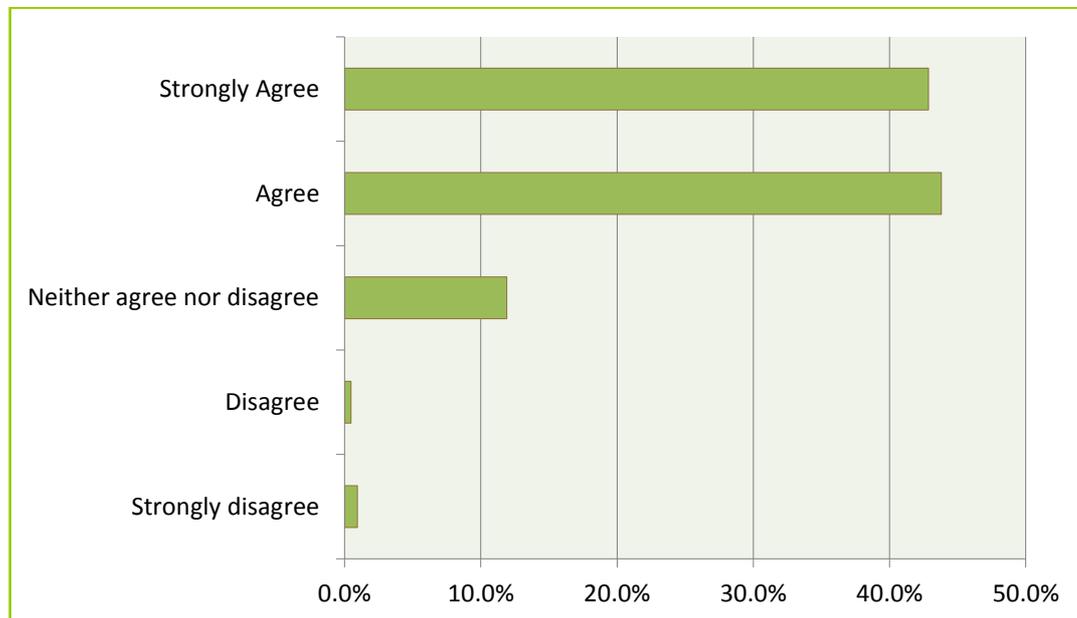


Figure 7-9: Vision 2030 For Qatar Is Aimed At Driving The Development Of Citizens And The Economy (Question 9)

Question 10 was designed to follow up with the factors that could be useful for Qatar to achieve Vision 2030. The premise for the question was to see how the

implementation of Vision 2030 has been viewed at the organisational level, and the rationale for stating the factors was to assess how respondents would rate the operationalisation of Vision 2030, based on their perceptions. Therefore, Question 10 acted as the first litmus test for the way in which those interacting with decision-makers, and who apply the decisions in their day-to-day operations perceive the Vision. Of the total number of respondents (284), only 218 responded to this question, meaning that 66 participants skipped it. Respondents were free to select multiple answers, and had a box to complete if they wanted to express their view more fully. Therefore, each question was examined based on the total responses that it could collect from the 218 individuals who participated.

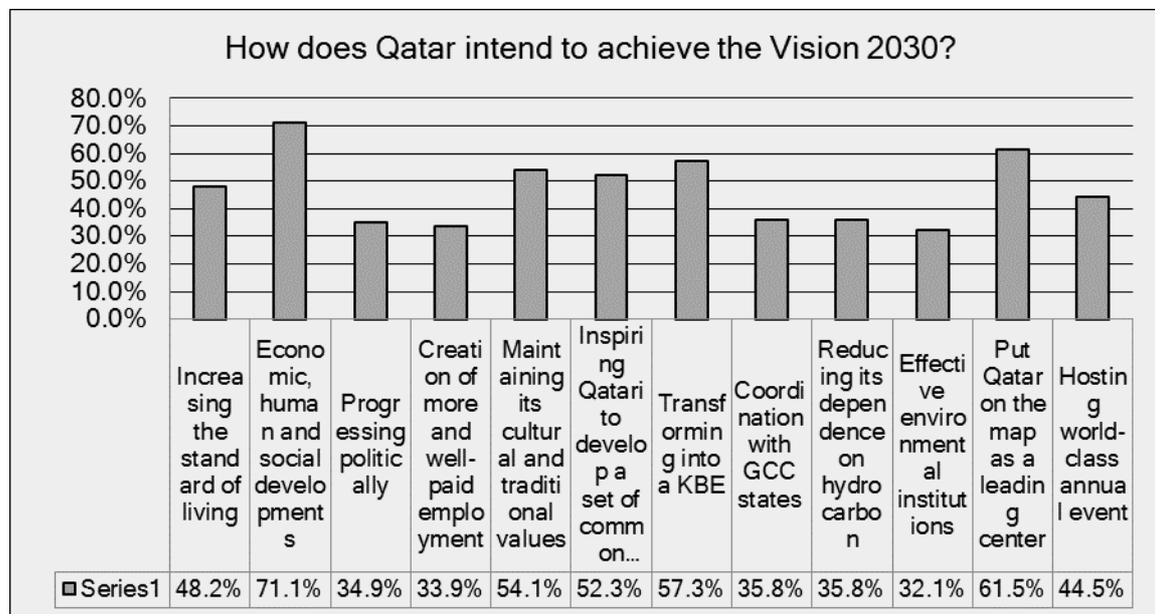


Figure 7-10: Factors Perceived To Be Cardinal For The Implementation Of Vision 2030 In Qatar (Question 10)

As shown in Figure 7-10, in descending order, it was observed that 71% of respondents (155) felt that the 2030 Vision for Qatar had been designed to implement the advancement of economic, human and social development. The second highest score at 61% (134) was that Vision 2030 was essential for the drive to put Qatar on the world map as a leading centre for research and development excellence and innovation. This factor leads to the argument that the influence of Qatar as a brand has a significant role in determining how the vision can be implemented. In addition, 57% of the respondents (125) believe that the 2030 vision is cardinal for the transformation

of the country into a knowledge-based economy. Some 54% (118) of the respondents felt that the vision 2030 could help to maintain Qatar's cultural and traditional values as an Arab and Islamic nation. The social, cultural, and religious elements of Qatari society have been depicted as a vital element of the vision, which has been ranked highly by respondents. Furthermore, 52% of respondents (114) indicated that such a belief has an element of inspiring local Qataris to develop a set of common goals that could be useful for the nation, both now and in the future. This implies that the unity achievable through social, cultural, and religious media has spill over effects into other factors. Moreover, 48% of respondents (105) felt that Vision 2030 has the propensity to increase local people's living standards, whilst 36% (78) believe that coordinating with GCC states and Arab and regional economic organisations is an essential strategy that Vision 2030 promotes so that there can be an improvement in, or establishment of, improved trade relations. Some 45% of the respondents (97) believe that with the Vision 2030 plan, Qatar could host world-class annual events, improving the perception of the nation among the international community.

Only 36% of the respondents (78) believe that Vision 2030 is critical for improving Qatar's investment and financial ties, while another 36% (78) believe that the vision is important for the country to gradually reduce its dependence on the hydrocarbon industries, enhance the role of the private sector, and maintain its competitiveness. Furthermore, 35% of the respondents (76) indicated that the vision could also lead to a progressive improvement in the country's politics, and 34% (74) believe that the Vision allows for the creation of more and better-paid employment. Lastly, 32% of the respondents (70) felt that Vision 2030 is an effective and sophisticated tool for protecting environmental institutions that build and strengthen public awareness about environmental protection, and encourage the use of environmentally sound technologies. Others stated that the programme aimed to invest in education systems and prepare leaders for the future, creating alternative economic resources rather than oil and gas, and establishing a fair working environment that is not based on connections and tribal status.

Question 11 asked respondents to state the type of actions that their organisation could take in order to achieve the implementation of Vision 2030. The rationale for the question was to assess the operational as well as strategic action points undertaken

by organisations that had been visible to their staff. Alternatively, if there were no actions from their organisation with regards to the implementation of the National Vision, the research could highlight the sticking points and potentially use them in the development of the framework. Of the 284 respondents, only 218 answered this question, and 68 skipped it.

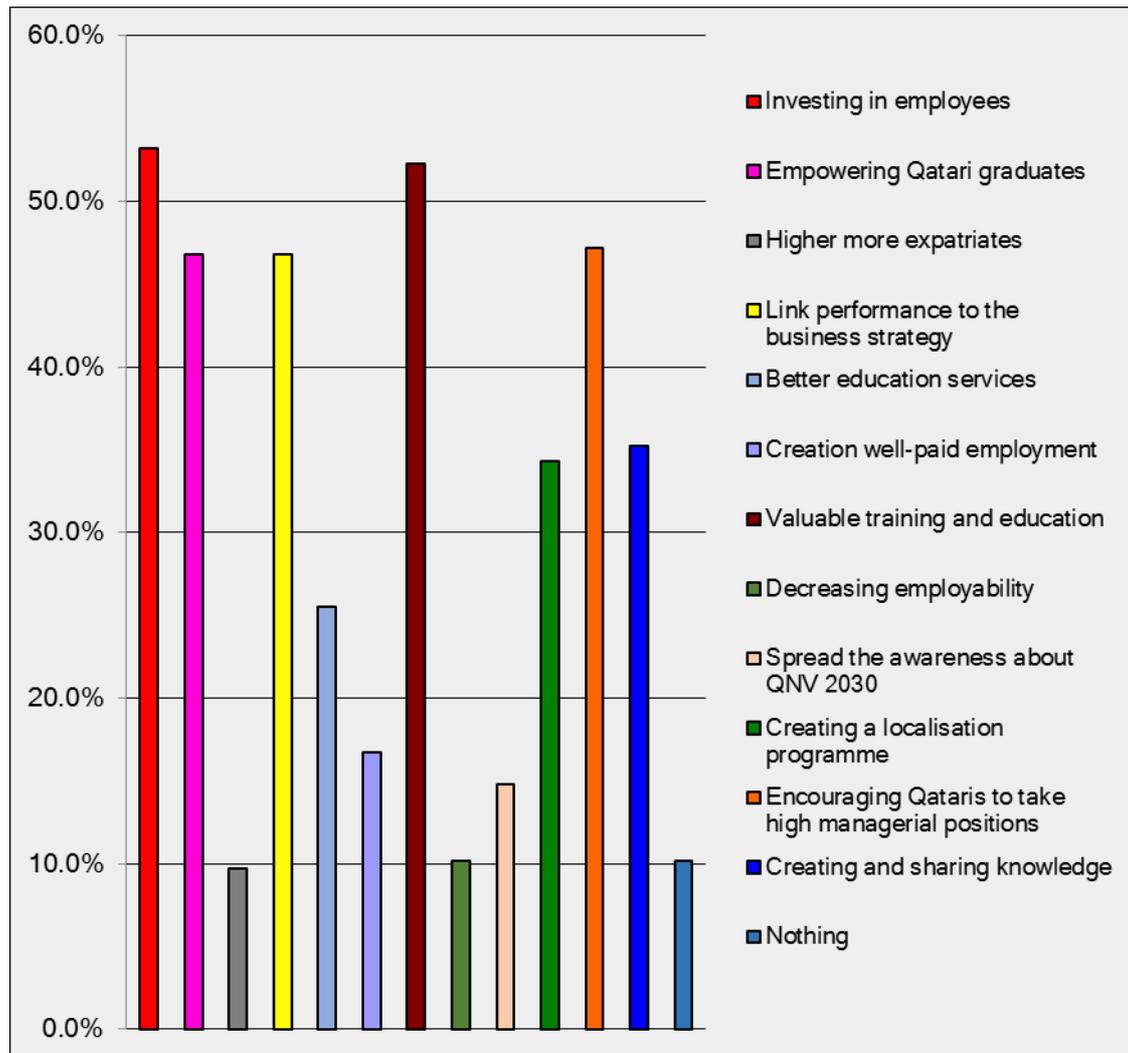


Figure 7-11: Specific Action Points Undertaken By Organisations As They Implement Vision 2030 (Question 11)

For Question 11, respondents were allowed to make multiple selections; therefore each response had a summation of total choices as scores. These could then be compared as a percentage of the total response with other available choices. Thus, Figure 7-11 shows that 53% of the respondents (115) stated that their organisation invested in employees while 52% (113) felt that the action of encouraging employees

to take up valuable training and education was critical. Furthermore, 47% of respondents (101) felt that they empowered Qatari graduates, while 47% (101) felt that their organisation linked employee performance to its organisational business goals. This shows that the top responses were linked to how respondents' organisations invested in employees through education and training as well as through schemes aimed at aligning business strategic goals with workers' goals. This approach was seen as highly recommended in organisations that operate in a KBE or who rely on the development of talent. The remaining 47% (102) believed that their organisation encouraged Qataris to take up higher managerial positions, meaning that there was a clear route for talent to develop from the operational to the strategic level of an organisation. This view was supported by 34% of respondents (74) who believed in creating a localisation programme – termed Qatarisation – as a strategy to ensure that local citizens occupy key decision-making positions. Another way of implementing Vision 2030, according to 35% of respondents (76), was to promote knowledge creation and sharing within organisations. It can be argued that promoting people, developing local citizens, and promoting knowledge creation and sharing are important factors for any organisation that operates in a KBE, as observed in the literature.

The third tier of responses to Question 11 about the way organisations implement Vision 2030 received the following outcomes; 25% of respondents (55) stated that they provided better education services to their employees, while 17% (36) felt that their organisation created more and better-paid employment. This suggests that they linked pay to developing a knowledge workforce. Additionally, 15% of the respondents (32) believed that it was possible to hold internal meetings to spread awareness of the QNV 2030 while 10% (22) felt that decreasing challenges linked to employability was a route that the Vision could implement. Another 10% of respondents (21) stated that their organisations had hired more expatriate officers. The remaining 10% of respondents (22) stated that their organisation had done nothing about Vision 2030. The reasons cited for this failure were that some organisations had not analysed the policy with a view to operationalising it in their strategic goals. Others realised that, although the vision aimed to foster communities across nationalities working in Qatar, there has been little progress in improving the visibility and awareness of strategy.

For Question 12, respondents were asked to state the challenges confronting the actualisation of the Qatar National Vision 2030 within their organisation. The rationale for asking this question was to ensure that there was a follow-up on the implementation and challenges that they could face in relation to Vision 2030. In response, a total of 204 respondents ranked their responses, while 80 skipped the question. They were allowed to choose as many responses as applicable, meaning that the analysis is based on the total percentage of selections per category, as summarised in Figure 7-12. Using a descending order for percentage scores, it can be observed that 45% of respondents (91) felt that delivering infrastructure projects on time was a major obstacle to the actualisation of Vision 2030. The other 45% of respondents (92) felt that finding the right employees in the wrong positions was common, such that developing them to be knowledge workers had been difficult. A high level of education, awareness and drive in terms of the strategic performance of an organisation was seen as essential to the development of talent at the organisational level (section 5.4). The second most popular response amongst respondents, at 43% (88), indicated that there was a culture of waste and nepotism, while another 43% (88) felt that organisations had unqualified employees in high positions. These responses suggested that organisational resources were not properly deployed and that finding the right workers could be hindered by a deliberate culture of nepotism; in such a case, it was possible to find unqualified people working in strategic positions. This poses a threat to the actualisation of Vision 2030 because if the key decision makers are not qualified to understand its strategic nature, expecting them to fully implement it may be impossible.

Moreover, 39% of respondents (80) felt that there was a lack of awareness regarding Vision 2030 while 33% (68) felt that the process of delivering infrastructure projects within budget and in line with quality standards had meant they had not focussed on the Vision. In addition, it was found that 33% of respondents (67) believed that a lack of transparency had compounded the low level of awareness among organisations. The response to Question 12 shows that, while a lack of awareness of the Vision is a real issue, strategic managers have missed key opportunities because they have focussed on achieving set productivity goals, which in itself is positive. However, these goals do not reflect elements of Vision 2030 so it could be difficult to actualise

such a policy if the workers are concentrating on productivity instead of the Vision (Figure 7-12).

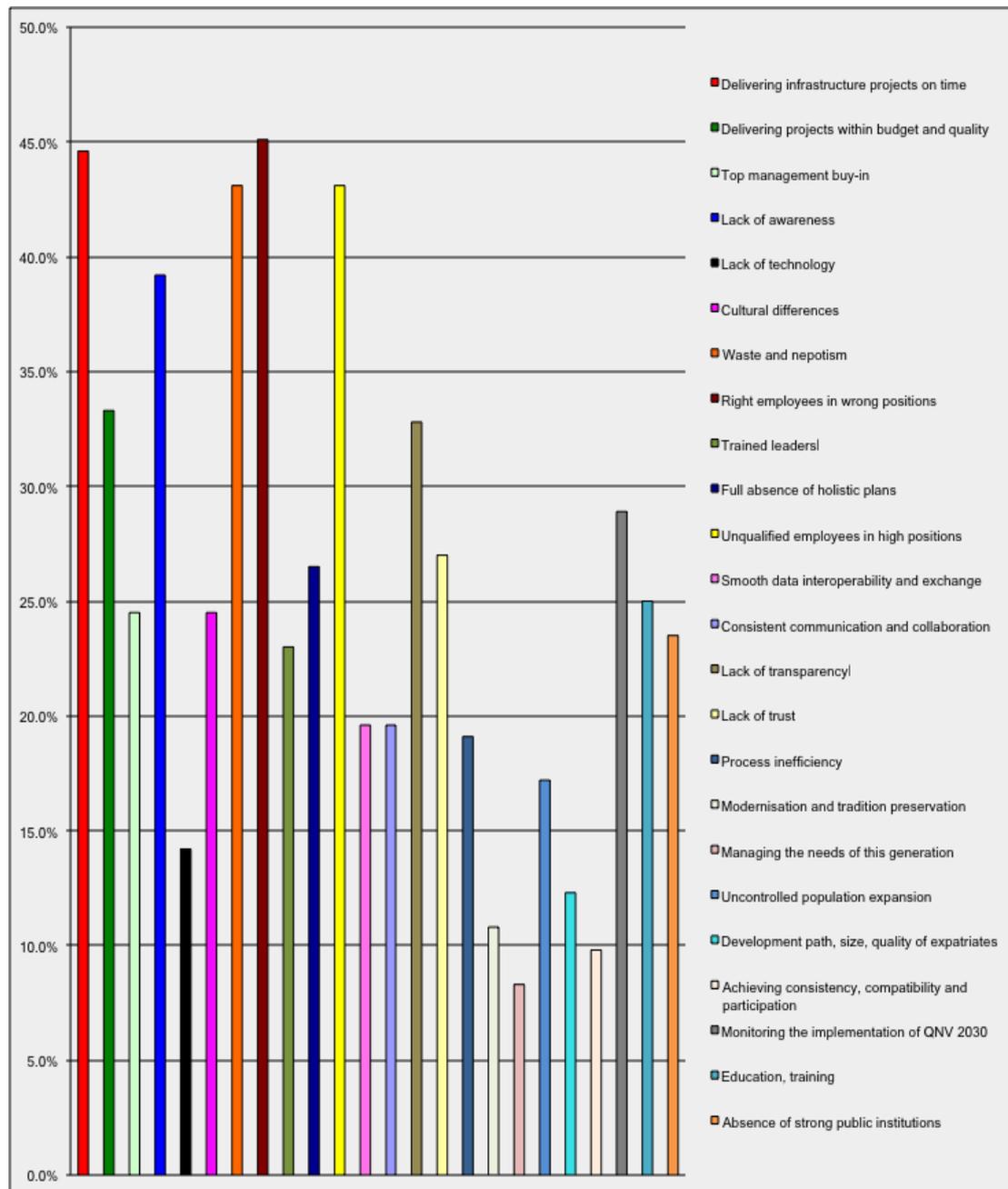


Figure 7-12: Challenges Facing Organisations When Actualising The Qatari Vision 2030 (Question 12)

Additionally, 29% of respondents (59) indicated that the process of monitoring the implementation of QNV 2030 has been an issue, whilst another 27% (55) felt that there was a lack of trust in the vision, and 26% (54) were of the view that the total

absence of holistic plans had been a challenge, as had working in line with individual operational plans set out at the company level. Similarly, 25% of the respondents (50) felt that there was a problem created by top management in buying into the 2030 Vision while 25% (50) observed that cultural differences were also a crucial factor. However, 25% of respondents (51) believed that education, training and employment, as engines for social and economic transformation, were missing ingredients for the implementation of the Vision. The responses under this tier focused on the way in which organisations aligned themselves with the Vision. It has been observed that, because there was no monitoring process for the Vision, organisations did not trust it and did not incorporate its elements into their strategic plans. This implies that actions, such as education or training or the support from top management, cannot be guaranteed. Moreover, 24% of respondents (48) felt that there was an absence of strong public sector institutions mandated to deal with the Vision, meaning that leadership was a problem, as indicated by 23% of respondents (47). Considering that the Vision was generic for the country, 20% of respondents (40) felt that it has no data that can be used to interoperate and exchange ideas between industries. Thus, 20% of respondents (40) felt that, if one industry was doing well, others could have struggled due to a lack of consistent communication and collaboration between industrial players.

Figure 7-12 also indicates that 19% of respondents (39) felt that there was genuine process inefficiency for implementing the Vision, and 17% (35) indicated that there was uncontrolled population expansion such that the vision is secondary to the focus of many organisations. Furthermore, 14% of respondents (29) thought that a lack of technology was an issue, while 12% (25) stated that the development path and the size and quality of the groups of targeted expatriates had impacted their participation in the actualisation of Vision 2030. Only 11% of respondents (22) were of the view that modernisation and traditional preservation in a rapidly globalising and increasingly interconnected world had mutually exclusive interests; hence, this virtual tug of war had a negative impact on the actualisation of the Vision. Another issue, according to 10% of respondents (20), was that there were difficulties achieving consistency, compatibility and participation, and then in adopting a comprehensive institutional development and modernisation process. Only 8% of respondents (17) felt that the real challenge was how to manage the needs of this and future generations. It can

therefore be argued that Vision 2030 is seen as a policy document that has not yet been embedded in the strategic operations of many organisations, such that its implementation to date has been challenging.

Question 13 asked respondents to state the reasons that could be linked to the challenges they referred to in question 12. In total, 196 respondents answered the question, while 88 skipped it. Some of the factors in Question 12 were repeated in Question 13 to assess how they were perceived in terms of their causal effects. Figure 7-13 visualises the following factors that are perceived to be creating the causal effect between the Vision and its implementation by organisations. The high number of selecting respondents has established the strength of the cause and effect relationship. Thus, 50% of respondents (97) cited poor communication while 47% (92) cited lack of experience; 44% (87) cited a lack of trust in the performance of locals, while 44% (86) felt that it was due to poor monitoring processes. Some 39% of the respondents (76) felt that a lack of transparency was a key issue, while 37% (73) felt that there was uncertainty regarding human resource development for certain positions. It was also noted that 35% of respondents (68) indicated that there was no clear organisational scope for the vision, and 33% (64) cited a lack of training. Furthermore, 33% of respondents (65) felt that locals were not interested in taking up this challenge, and another 33% (64) also referred to missing rules and regulations, or standards to be used. Figure 7-13 also summarises the fact that 29% of respondents (56) felt that their human resource department had misunderstood their role and responsibility, while 27% (52) reasoned that employee behaviour was a factor in the failure to implement the Vision. Additionally, 21% of respondents (42) cited that top management buy-in was weak, and another 21% (41) felt that the absence of strong public sector institutions compounded the problem of implementing the vision. Some 18% of the respondents (36) believed that many organisations had over-relied on expatriate workers, and only 15% (30) cited uncontrolled population expansion. Finally, 9% of respondents (18) stated that out-dated technologies had a negative impact.

The pattern of the responses in Figure 7-13 shows that there are strategic difficulties that organisations have been experiencing such that Vision 2030, as a policy, has not permeated key decision-making branches of organisations for it to have firmly taken hold within the economy. The response also shows that fundamental elements of

building this vision have not been addressed at the organisational level even though the policy may have addressed them. Factors, such as human development, experience, trust, organisational scope and employee behaviour, are essential to a knowledge-based organisation to operate in a knowledge-based economy.

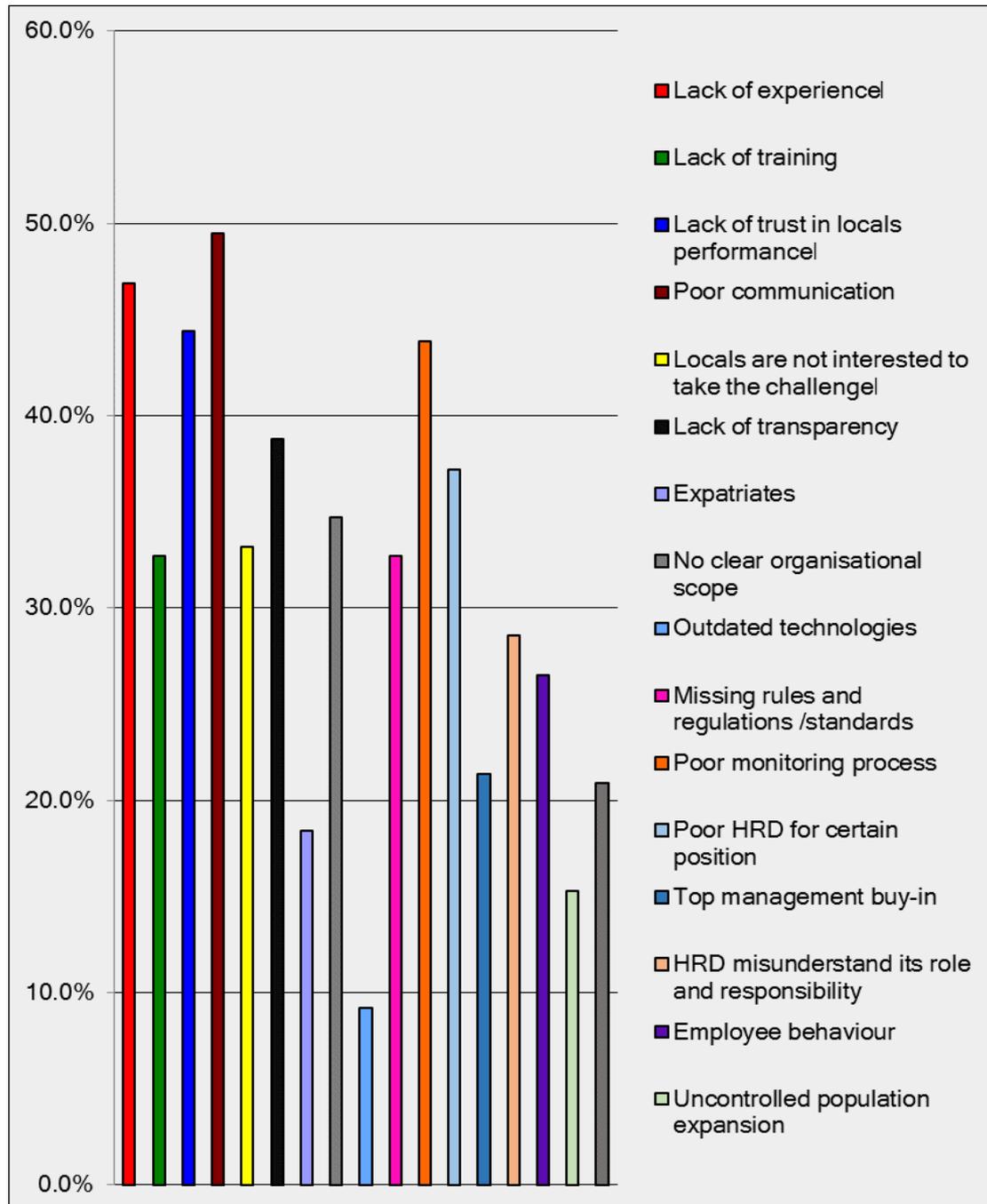


Figure 7-13: Causes Of The Challenges Referred To In Question 12 Regarding The Implementation Of Vision 2030 (Question 13)

Some other comments about the major causes for the poor actualisation of the Vision have been the highly bureaucratic decision-making processes in the country, which impedes progress. It was also observed that there is rampant mistrust of expatriate workers; for instance, the implementation of exit visas as well as visa restrictions for changing jobs has led to a situation where knowledgeable workers, such as expatriates, cannot speak up if wrong decisions are made for fear of dismissal. As a result, expertise embedded in the expatriate community has a short-term focus that prioritises job retention over the future of the country. Indeed, some respondents felt that there needs to be more trust between Qataris and expatriate workers. Another major reason cited was that organisations have been giving too much money to unqualified employees who are also not confident of their job security; as a result, their focus is to maintain their positions as opposed to developing talent for Vision 2030.

Question 14 asked respondents to state if their company, or organisation, relies on business from the oil and gas sector. The rationale for this question was that a knowledge-based economy that would strive to undertake human development and talent management needs an economy that is operating in multiple sectors, such that if one sector fails, the impact on the economy would not be felt as widely. However, many economies in the GCC have had a heavy reliance on the hydrocarbon industry for many years, such that in times of low oil and gas prices, economic output tends to dip.

A Likert scale was used for this question, where 1 stood for 'doesn't rely on the oil sector'; 2 stood for 'low reliance on the oil sector'; 3 stood for 'medium reliance on the oil sector'; 4 stood for 'highly reliant on the oil sector' and 5 stood for 'extremely reliant on the oil sector'. Of the 284 respondents, only 203 participated in this question, and 81 skipped it. The response shown in Figure 7-14 shows that 64% of respondents (130) did not feel that their organisation was reliant on the oil and gas sector, whilst 10.3% (21) stated that their organisation had an extreme reliance on the hydrocarbon industry. Some 9.4% (19) felt that their organisation's reliance on the oil and sector had been low, while 8.9% (18) indicated that their organisation showed a medium level of reliance. Only 7.4% of the respondents (15) were of the view that their organisation was highly reliant on the oil and gas sector of Qatar. It can therefore

be argued that the pattern of responses shown in Figure 7-14 has been one where there have been fewer respondents with a high level of reliance on the oil and gas industry. It could also be argued that the response tallies with the attributes of the sample (n), which had more people working for governmental or quasi-governmental establishments. However, even though there are a high number of people not directly linked to the oil and gas sector, the Qatari economy has been driven by the hydrocarbon industry over the years with the help of the government’s economic planners.

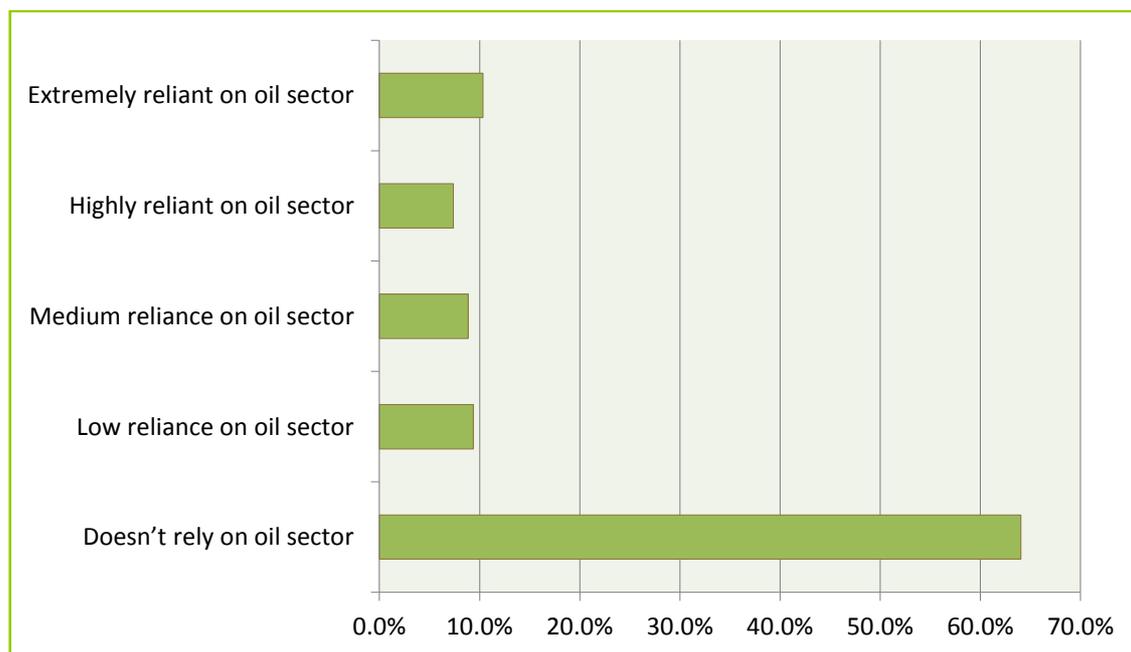


Figure 7-14: Company Or Organisation Relies On Business From The Oil And Gas Sector Of The Economy (Question 14)

Question 15 asked respondents to rate whether the government should incentivise organisations to achieve the Qatar National Vision 2030. The reason for the question was to assess how far the government should go, or should have gone, in terms of operationalising the Vision. In total, 208 respondents answered the question, while 76 skipped it. A Likert scale of 1 to 5 was used; 1 stood for ‘strongly disagree’; 2 stood for ‘disagree’; 3 stood for ‘neither agree nor disagree’; 4 stood for ‘agree’ and 5 stood for ‘strongly agree’. The response to Question 15 has been summarised in Figure 7-15 where 61.1% of the respondents (127) strongly agreed with the question while 29.3% (61) agreed. Only 6.7% (14) neither agreed nor disagreed and 1.9% disagreed. Two

individuals (1%) strongly disagreed with the question. The results indicate that there is a strong belief that the operationalisation of the Vision at the organisational level should be spearheaded by the government by ensuring that incentives were given to organisations for specific performance indicators with regards to the implementation. Without incentives, the implementation of Vision 2030 becomes a strategic decision made by managers after having assessed organisational circumstances. It is impossible to establish how decisions are made at each organisation, especially about the priority settings for each organisation. However, the respondents largely agreed with a programme of incentives where QNV 2030 could have been better operationalised by embedding it in a strategic framework for organisations.

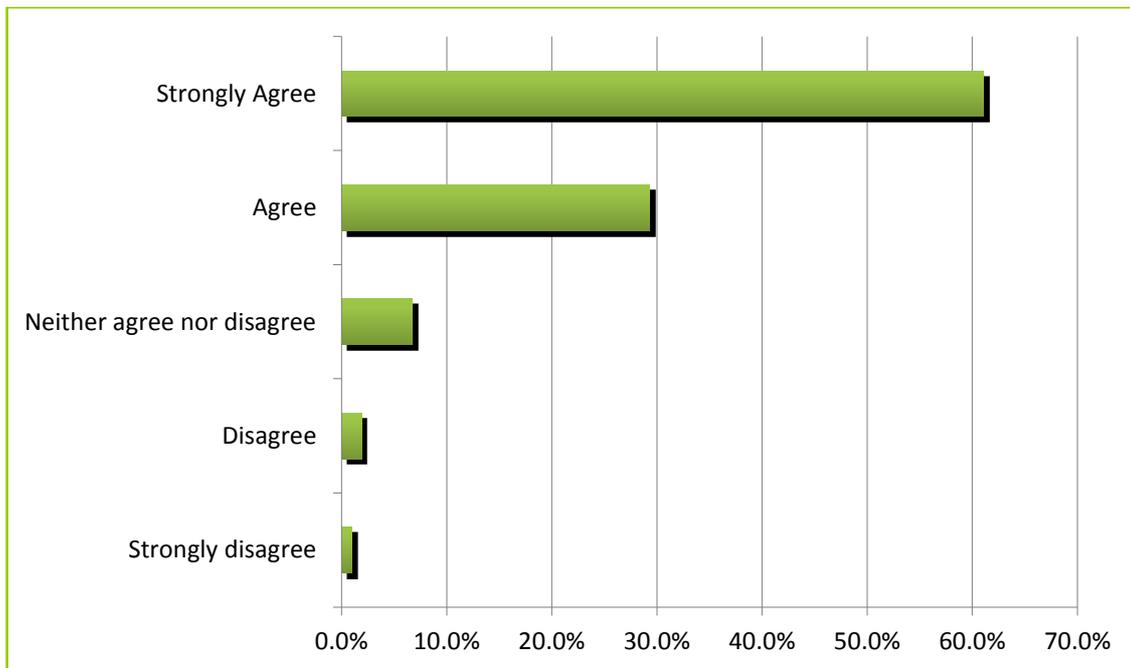


Figure 7-15: Testing The Perception That The Government Needed To Incentivise Organisations To Implement QNV 2030 (Question 15)

In Question 16, respondents were asked to assess the perception that organisations should incentivise their employees to work towards achieving the Qatar National Vision 2030. The reason for asking this question was to assess how respondents would react when the issue of implementing the QNV 2030 was directed at their decision makers. The same Likert scale was used in order to ensure that responses could be correlated and compared. Only 209 respondents answered the question, while 75 skipped it. Figure 7-16 summarises the results of the response; it shows that

59.8% of the respondents (125) strongly agreed with incentivising employees, while 33% (69) agreed with the question and 5.3% (11) neither agreed nor disagreed. Only 1% of the respondents (2) disagreed, while the other 1% (2) strongly disagreed with the suggestion that companies should provide incentives to workers so that they can realise the QNV 2030. Even though there is overwhelming support for incentives to the workforce, it can be difficult to establish how this can be achieved in organisations where Vision 2030 has not been embedded within the strategic goals.

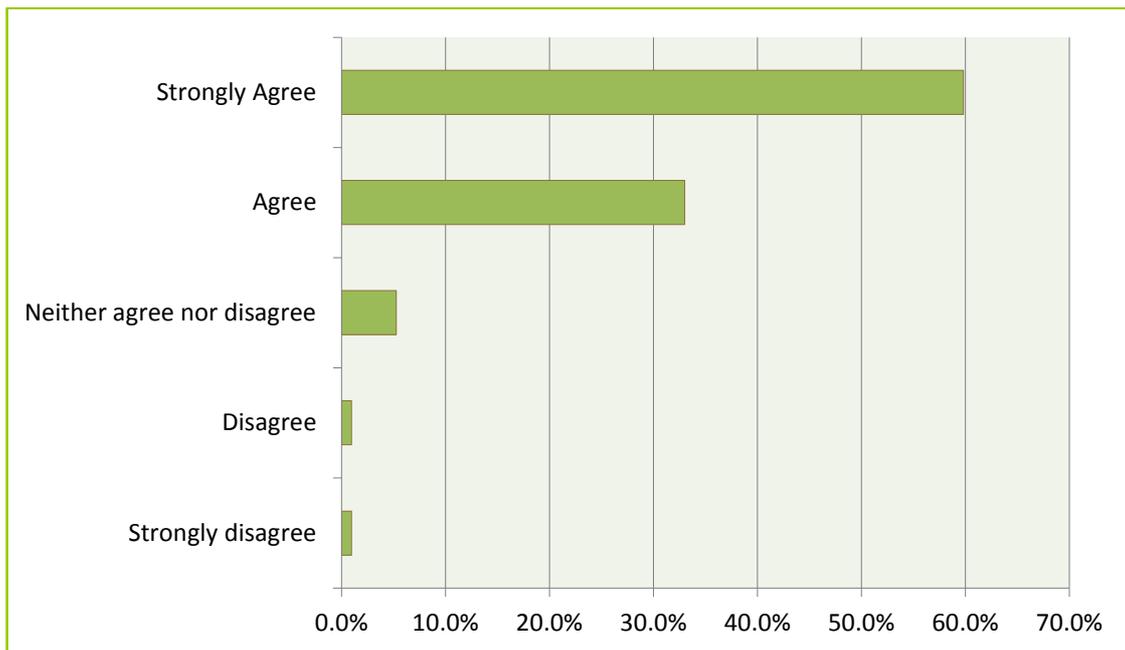


Figure 7-16: Testing The Perception That Organisations Needed To Incentivise Employees To Work Towards The Implementation Of QNV 2030 (Question 16)

Question 17 used a similar Likert scale to ask if respondents were individually motivated to develop themselves within the organisation in order to become a leader. The reason for the question was to assess how the individuals related their own situation to Vision 2030. It can be easy for individuals to distance themselves from the strategic goals of the organisation and that of the country at large; however, the question was aimed at ensuring that they were able to align their work with the QNV 2030. Only 207 responded to the question while 77 skipped it. The response summarised in Figure 7-17 indicates that 63.8% of the respondents (132) strongly agreed with the argument that they were motivated to achieve the National Vision 2030. Furthermore, 24.6% (51) agreed with the question, while 6.3% (13) neither

agreed nor disagreed, because they were not sure if they were motivated enough to implement the Vision. Some 2.9% of the respondents (6) strongly disagreed with the question, meaning that they were not motivated to implement the Vision, and 2.5% (5) disagreed. Looking at the pattern of responses in Figure 7-17, it can be argued that many respondents were motivated enough to take up Vision 2030; however, there were also a few who were categorically clear that they were not motivated to take part, while others were not sure.

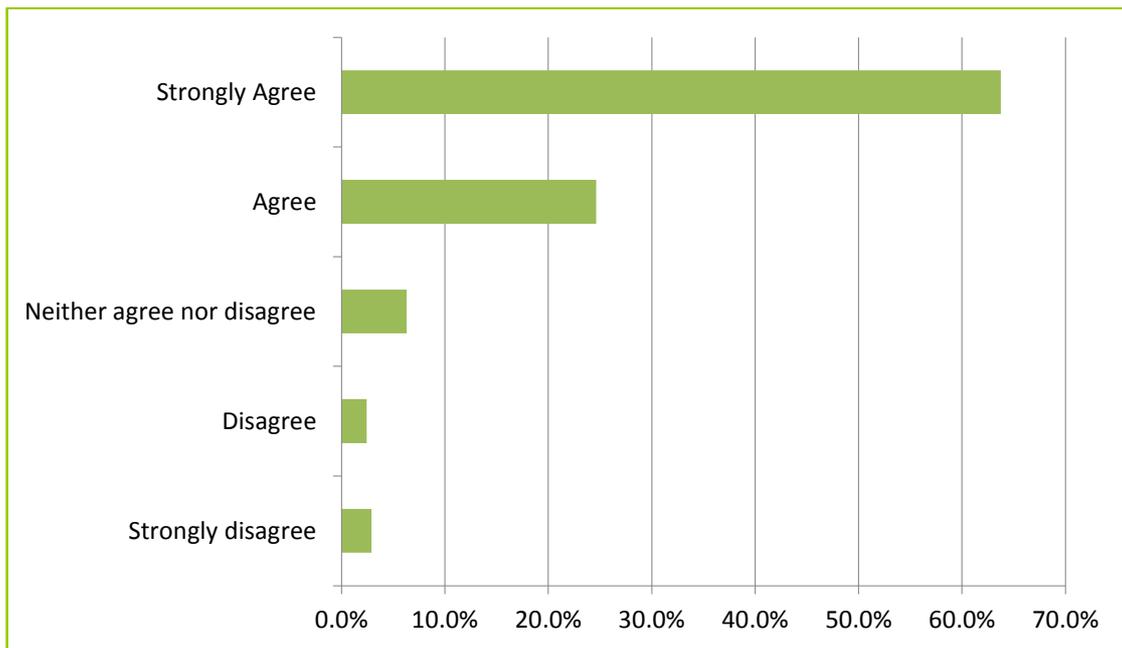


Figure 7-17: Testing The Perception Regarding The Motivation That Each Respondent Had Towards Becoming A Leader (Question 17)

The process of taking part in the implementation of the Vision lies in how well individuals can work and share knowledge at the organisational level. Therefore, the next section of this analysis explores the processes that have been used in order to achieve a knowledge-based economy from the angle of the respondents.

7.5 Section Three: Achieving a Knowledge-Based Economy

Section Three of the questionnaire concentrated on assessing the awareness of Qatar’s economic position and the influence of global trends regarding knowledge-based economies on the country. The rationale for including this section was to ensure that

respondents were exposed to the issue of economic drivers to assess their opinion, which could then be tested against the factors that were raised in the literature review. The first question under this section was Question 18; it offered a Likert scale of (i) strongly disagree; (ii) disagree; (iii) neither agree nor disagree; (iv) agree; and (v) strongly agree. Question 18 tested the respondents' perceptions of the argument that local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge. Of the 284 respondents, only 168 answered this question while 116 skipped it.

The response has been summarised in Figure 7-18 where 44.05% of respondents (74) felt that the locals could support the diversification process; however, 38.7% (65) agreed with the question. Furthermore, 14.9% of respondents (25) neither agreed nor disagreed with the idea that the economy could be diversified to a knowledge-based one. Three (3) respondents disagreed with the question while 1 person strongly disagreed with it.

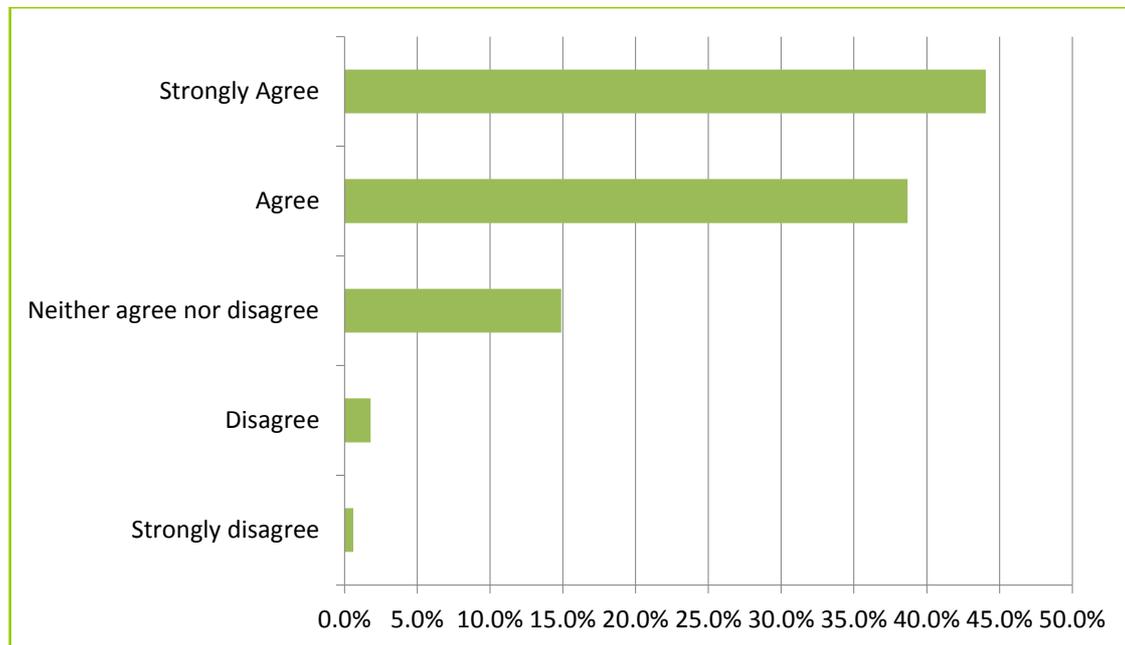


Figure 7-18: Testing Local Support For The Transformation Of The Economy From Hydrocarbon-Reliance To Knowledge-Based (Question 18)

The argument from those who disagreed was that currently the focus is on how people wish to benefit from the hierarchy of management; this kind of attitude gives no assurance that there could be a workforce ready to ensure that such a transformation will be supported. A large number of respondents skipped this question; this indicates that some members of the sample did not view the transformation of the economy as something they either could or wanted to comment on.

Question 19 asked if respondents could state their opinion regarding the perception that professional practice within their organisation was keen to implement knowledge management through knowledge creation and sharing. The rationale for the question was to establish the basic principles of the KBE where the respondent is made aware of how they participate in day-to-day activities, such as the creation and sharing of knowledge. It was therefore assumed that, if the KBE is isolated, it can be difficult to assess how respondents react to it; therefore, it was important to break it down into simple units that can be measured separately. Of the 284 respondents, only 168 answered this question, while 116 skipped it. Figure 7-19 summarises the results as follows:

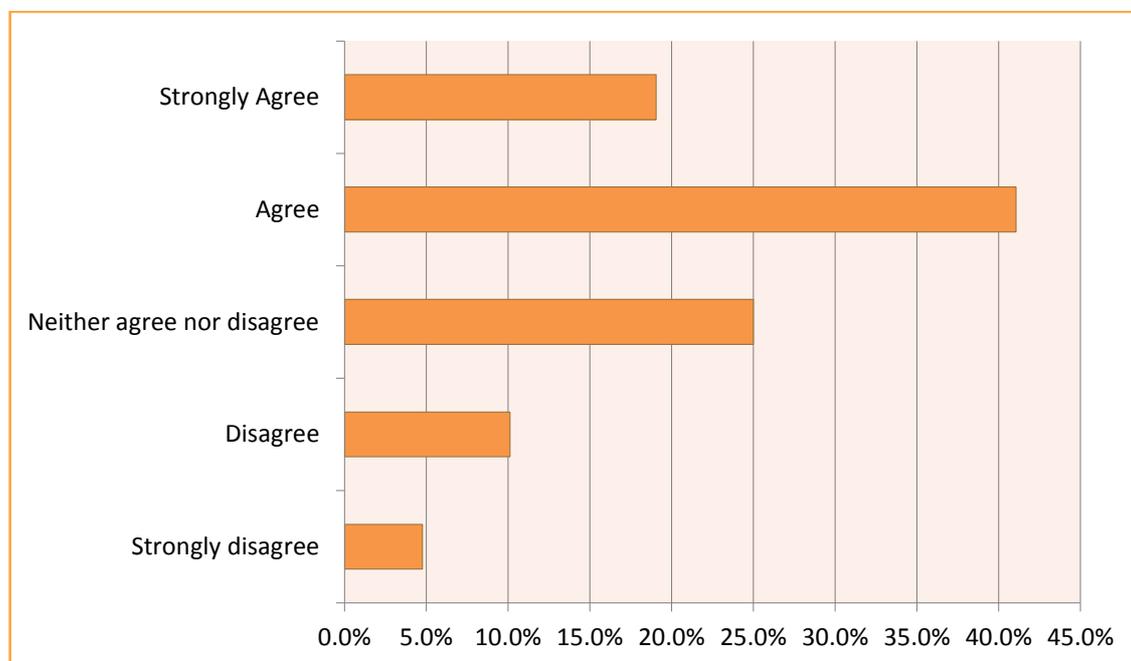


Figure 7-19: Testing The Opinion On The Argument That Professional Practice Within Respondents’ Organisations Were Keen To Implement Knowledge Management Through Knowledge Creation And Sharing (Question 19)

Figure 7-19 shows that 41.07% of the respondents (69) agreed with the supposition that they were involved in the creation and sharing of knowledge; 25% (42) neither agreed nor disagreed, while 19.05% (32) strongly agreed with the statement. Some 10.12% of respondents (17) disagreed while 4.76% (8) strongly disagreed that they were involved in the creation and sharing of knowledge. The response paints a picture that there is a high level of knowledge creation and sharing at the organisational level, although a small number of respondents indicated that they were not sure if there was knowledge creation or sharing in their workplace.

Knowledge creation and sharing cannot be done on its own; there have to be initiatives from the organisation. Hence, Question 20 was linked to Question 19, in that it asked whether the respondents believed that their organisation was keen to implement organisational learning as way of managing all levels of activity in their firm. Of the 284 respondents, only 166 answered this question, meaning that 118 skipped it. Figure 7-20 summarises the results as follows: 36.75% of respondents (61) agreed with the statement that their organisation promoted organisational learning; while 28.31% (47) neither agreed nor disagreed. A further 17.47% of respondents (29) strongly agreed with the supposition that their organisation had promoted organisational learning, whilst only 12.65% (21) disagreed and 4.82% (8) strongly disagreed.

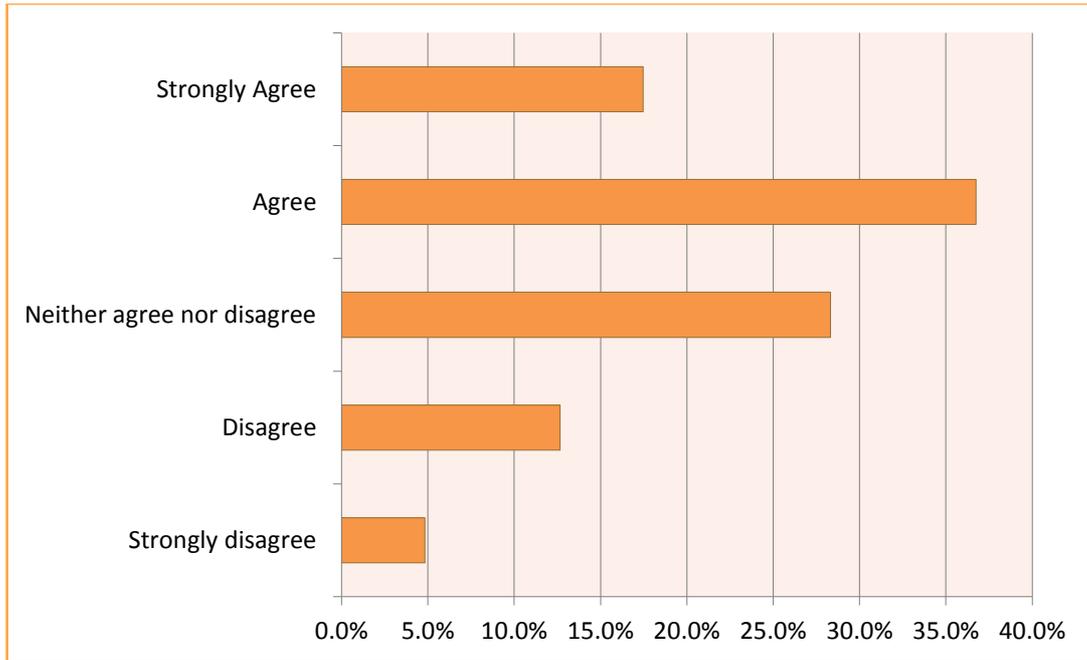


Figure 7-20: Testing The Availability Of Organisational Learning Initiatives In The Workplace (Question 20)

The implication of the responses to Question 20 is that, while many respondents felt that there was organisational learning in their workplace, it was not visible for many others who were doubtful or who out-right rejected the supposition that their organisation promoted learning. This contradiction shows that the creation of knowledge has been evidenced in many organisations but sharing it in order to learn from the knowledge could require further improvement.

Under Question 21, it was possible to ask how respondents perceived the argument that the knowledge-based economy could be valuable to Qatar in order for the country to gain competitive advantages. The rationale for the question was to link the issue of the knowledge economy to competitiveness for the Qatari economy, hence striving to address the overreliance on the hydrocarbon industry. Of the 284 respondents, only 167 answered this question while 117 skipped it. Figure 7-21 summarises the results as follows: 50.30% of the respondents (84) strongly agreed with the argument that a knowledge-based economy would make Qatar highly competitive; 41.32% (69) agreed with the supposition that achieving a knowledge-based economy would make Qatar's economy very competitive; 7.78% of respondents (13) could neither agree nor disagree with the statement while 0.60% (1) disagreed.

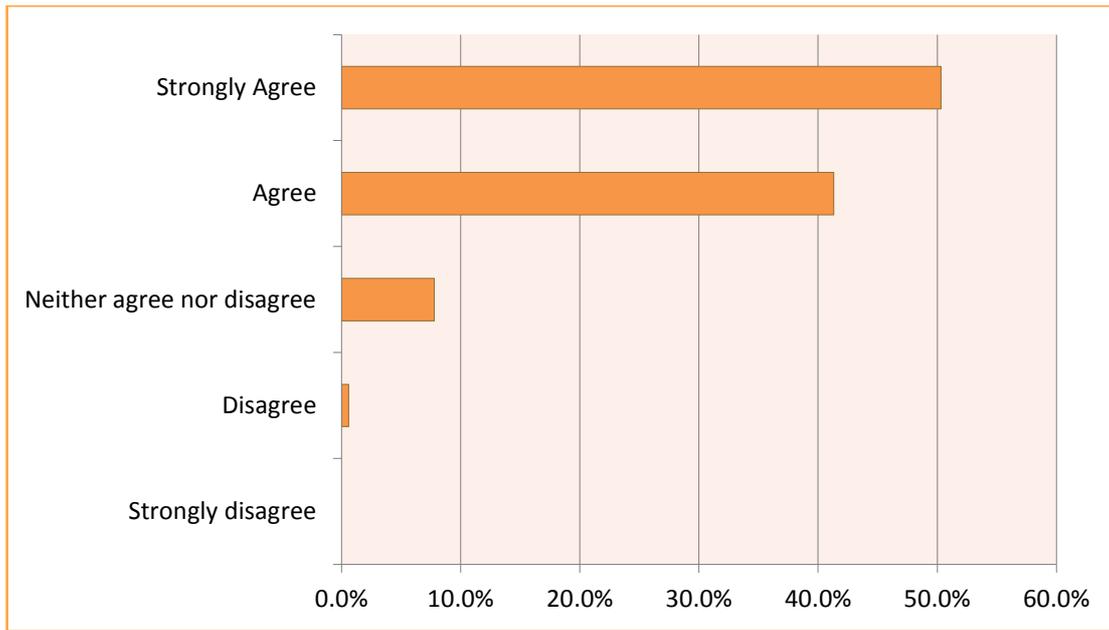


Figure 7-21: Testing The Perception Of The Argument That A Knowledge-Based Economy Could Lead To Gaining Competitive Advantage For Qatar (Question 21)

The overall picture shown in Figure 7-21 is that there is a clear realisation that knowledge is vital for the overall competitiveness of the country as an economy. Furthermore, the way the economy is set up would lead to competitiveness if its functions were based on knowledge. It was, however, anticipated that not every organisation sampled would operate as a full-scale knowledge organisation, hence there was a need to ask for any challenges that the organisation may face in operating in an industry driven by knowledge.

Question 22 asked respondents to state the problems that they faced as they worked on retaining knowledge in their organisation. The emphasis was not placed on ‘people’ alone, as that could have solely focused on tacit knowledge; it was vital to assess the element of explicit knowledge because they were related to the functions of the organisation. Figure 7-22 summarises the perceptions from respondents who were allowed multiple selections. Therefore, the aggregate scores have been compiled to create Figure 7-22. Out of the total of 284, 167 respondents answered Question 22 while 117 skipped it. The aggregate response shows that 61.68% of respondents (103)

felt that the 'lack of a knowledge retention strategy' was the major issue affecting companies without knowledge retention measures in place.

The second highest response rate was 40.72% (68) amongst those respondents who felt that human resource practices had an impact on knowledge retention, suggesting that there is an issue regarding how human resource management is practiced in organisations where there is no emphasis on knowledge retention. The third highest factor was a lack of information, which was selected by 38.92% of respondents (65), while 37.72% (63) felt that there was a lack of a learning culture in the workplace.

The second tier of responses to Question 22 indicates that 26.95% of respondents (45) felt that there was poor knowledge sharing in the organisation, while 26.35% (44) felt that there was an element of 'reinventing the wheel' because the options given to employees were not original. Some 25.15% of respondents (42) felt that there was a lack of top management support, while 23.95% (40) felt that knowledge leaves an organisation during times of employee downsizing. Furthermore, 23.35% of respondents (39) felt that crucial knowledge was lost when key employees left the organisation. This shows that tacit knowledge is lost naturally when organisations let go of their workforce or downsize. Although these factors were anticipated as being high on the list, they were selected by less than 30% of the total, which suggests that respondents were confident that the workers left in the organisation could still possess the appropriate tacit knowledge.

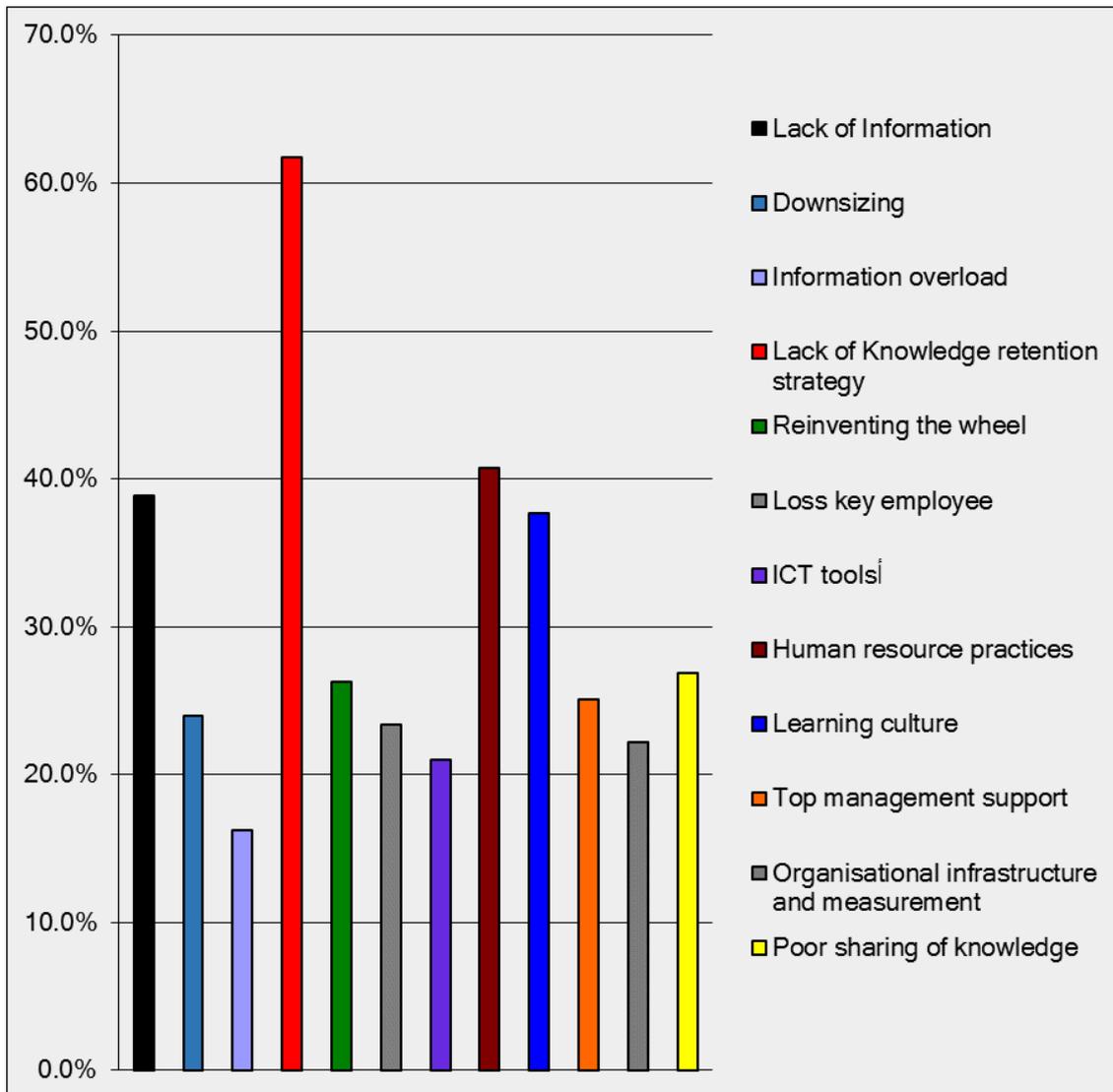


Figure 7-22: Summary Of The Challenges Faced By Organisations At Retaining Knowledge (Question 22)

Furthermore, 22.16% of respondents (37) felt that organisational infrastructure and performance measurement was a big issue because they could not know how they performed in comparison with others in the industry. However, 20.96% (35) were of the view that information and communication technology tools were not utilised to the full, while 16.17% (27) felt that their organisation had information overload. From the responses to Question 22, it can be observed that overall, there was no clear strategy for organisations to retain knowledge; without such a strategy, all other things were not being optimised to the benefit of the economy. There is also a perception that talent was not a massive hindrance because organisations can attract the best people around the world even if there is high employee turnover. However, if human

resource practices were receptive to knowledge creation, sharing and retention, more could be achieved at the organisational level. The challenges of achieving this are significant because Qatari society is perceived to be heavily materialistic and hard work is not part of the fabric of the workforce.

For Question 23, respondents were asked to state the factors causing local Qataris to be disinterested in, (i) taking the leading role in their organisations, and (ii) performing or working in accordance with the requirements of a knowledge-based economy. Of the 284 respondents, only 169 answered the question, meaning that 115 skipped it. However, the respondents were allowed to select multiple factors, hence the aggregate scores have been converted into a percentage of the total. Question 23 was a follow-up to Question 22 because it was directed towards the perception of the respondents regarding Qataris. The main issue for the research has been assessing how local Qataris can be identified as the next generation of talent to lead the nation into a knowledge-based economy. In descending order, the main issues selected by respondents are summarised in Figure 7-23 as follows: 10.45%, or 21 respondents, cited ‘cultural behaviour and competence’ as the highest factor that leads to a lack of interest amongst local Qataris. Some 8.96%, or 18 respondents, cited the ‘culture of privilege not wishing to earn after work’ meaning that, because local Qataris have privileges from the government, they are not interested in working. The third highest factor, cited by 8.46% or 17 respondents, was ‘work culture and ethics’, meaning that there were low levels of good work cultures and the application of ethics.

Moreover, 7.46%, or 15 respondents, cited the lack of ‘incentives or benefits’ in the long term, while 6.97%, or 14 respondents, believed there was a lack of motivation. Incentives and motivation are two issues that are intertwined; therefore, it can be argued that the plan to develop the economy into a knowledge-based system has a lack of incentives for local people to help develop it. Some 6.47%, or 13 respondents, felt that ‘expatriates were not sharing information’, while another 6.47% felt that there was a ‘lack of recognition for achievement’. This shows that there is a belief that expatriates have been seen as central to the evolution of knowledge-based economic principles, such that if the expatriates do not facilitate knowledge sharing, it can be difficult for locals themselves to develop their talent and lead the economy into a KBE. Furthermore, 5.97% of respondents (12) felt that there was generally slow

progress in leadership development, while 5.47% (11) stated that there was poor development in general. This meant that there was no evidence of development, planned or otherwise, for people to take up leadership positions. The two factors were closely linked by the 4.98% of respondents (10) who cited the 'lack of confidence' by local people and the 4.48% (9) who stated that there was a lack of 'awareness for national building'; another 4.48% (9) stated that locals have a high level of 'complacency driven by high remuneration'.

At the lower end of the scores, only 3.98% of respondents (8) felt that there was a lack of proper training, while another 3.98% (8) stated that there was a lack of interest in gaining knowledge. If there was no interest amongst the locals, it can be seen why training opportunities could be limited. However, 3.48% of respondents (7) felt that there was poor self-performance and evaluation, while another 3.48% (7) stated that locals lacked the courage to take on responsibilities because 'they were afraid of responsibilities'. Being overwhelmed by responsibilities is a normal factor regardless of the level of leadership or experience. However, 2.49% of respondents (5) were of the view that currently there are no competitive human resources practices that could lead locals from being inexperienced to experienced practitioners of knowledge; as a result, there is no tangible action plan for such a move to take place, according to four (1.99%) respondents.

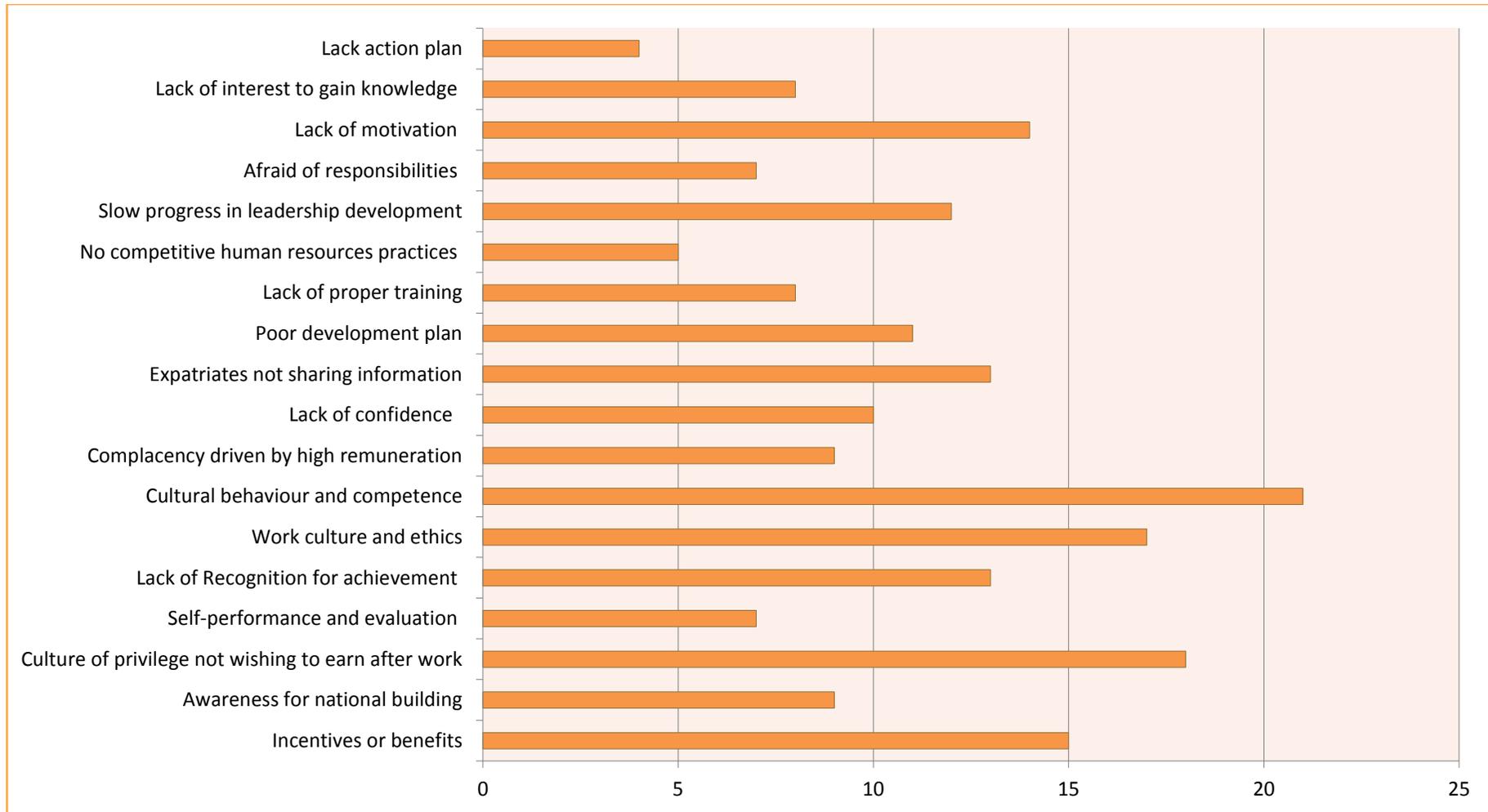


Figure 7-23: Summary Of The Factors Causing Local Qataris To Be Disinterested In Developing Their Talent In A Knowledge-Based Economy (Question 23)

Furthermore, Question 24 assessed respondents' perceptions of the argument that their organisation could be ignoring individual knowledge and experience in favour of information and communication technology (ICT) systems. It was vital to assess how organisations have been simultaneously balancing operations in terms of the deployment of knowledgeable and experienced workers with the necessary ICT systems. Out of the total 284 respondents, only 169 responded to the question and 115 skipped it. Figure 7-24 indicates that 40.83% of respondents (69) could neither agree nor disagree with the proposition; however, 28.99% disagreed and 12.43% (21) agreed that experience and knowledge were being side-lined in favour of ICT systems.

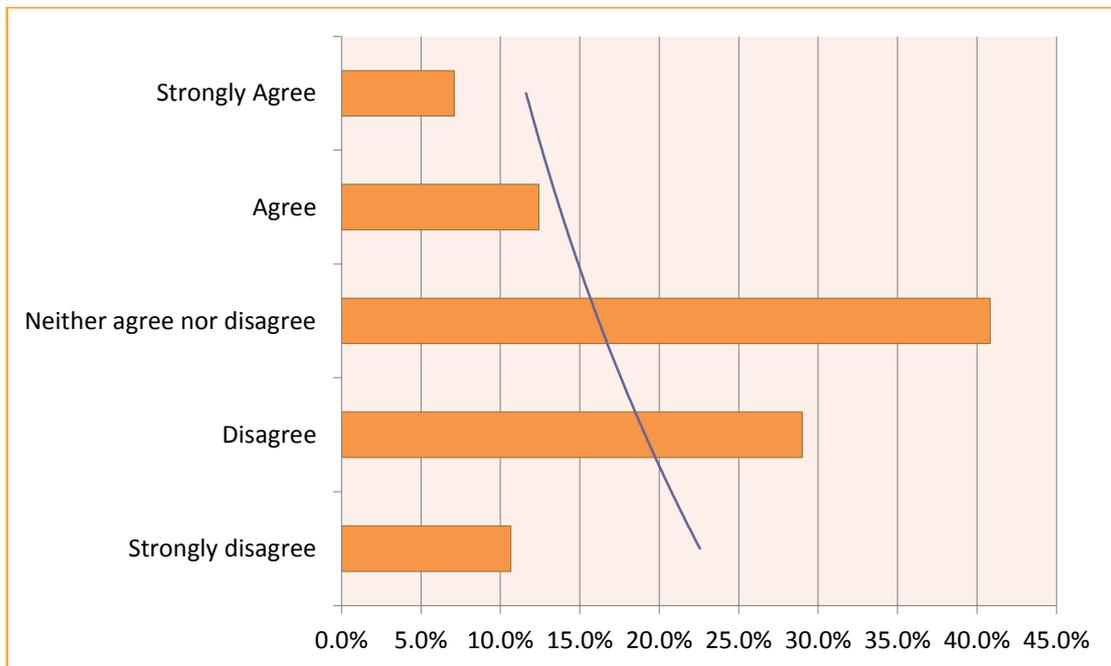


Figure 7-24: Testing The Perception That Organisations May Be Ignoring Knowledge And Experience In Preference For ICT Systems (Question 24)

Some 10.65% of respondents (18) strongly disagreed with the argument that knowledge and experience was being ignored, while 7.10% of respondents (12) strongly agreed. The trend line on Figure 7-24 shows that the respondents generally disagree with the view that experience and knowledge is ignored; however, there is a slight indication that there were a significant number of respondents who felt that ICT systems have serious recognition in the economy. Nevertheless, knowledge and

experience cannot be substituted even though they could be considered difficult to retain within an organisation.

Question 25 was a follow-up to how respondents perceived the mechanisms within their organisation that allowed employees to learn from each other, regardless of their level of management. The question intended to ask how well respondents were able to interact, learn and share knowledge regardless of the availability (or lack) of management support. While there are some positions within the organisational breakdown structure that could be ideal for employee learning others may not be. Of the 284 respondents, only 165 answered the question, while 119 skipped it. The summary of response in Figure 7-25 shows that 33.94% of respondents (56) neither agreed nor disagreed with the proposition that employee learning takes place; although 28.48% (47) strongly agreed that learning was taking place at all levels of management, 18.79% of respondents (31) disagreed.

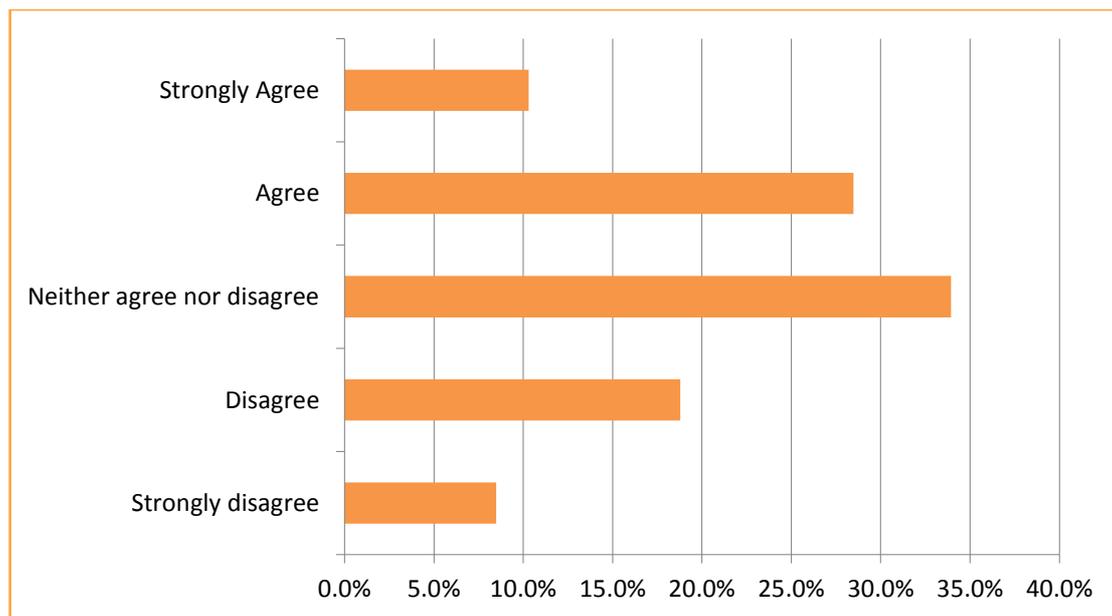


Figure 7-25: Testing The Availability Of Mechanisms To Promote Employee Learning At All Levels Of The Organisational Hierarchy (Question 25)

Even though 10.30% of respondents (17) strongly agreed with the argument that there was learning at all levels of their respective organisations, 8.48% (14) strongly disagreed because they had not seen evidence of any learning processes.

One key ingredient of a knowledge organisation and a knowledge economy is the promotion of creativity. It was essential to ask respondents (Question 26) whether the industry they operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves. In other words, there was a need to assess the perceived level of competitiveness that was driven by a realisation that the sector and its players are competing better than the organisation they worked in at the time of the survey. Out of the 284 respondents, only 165 answered the question while 119 skipped it. The responses summarised in Figure 7-26 show that 33.94% of the respondents (56) neither agreed nor disagreed, while 32.73% (54) agreed with the argument that organisations have been creative enough, such that they benchmark their competitors. Some 13.33% of the respondents (22) disagreed while 10.91% strongly agreed. Only 9.09% of the respondents (15) strongly disagreed with the argument that they were creative enough and able to benchmark their competitors. The trend line in Figure 7-26 shows that the overall response indicates a belief in creativity and that they also benchmark their competitors within their sector.

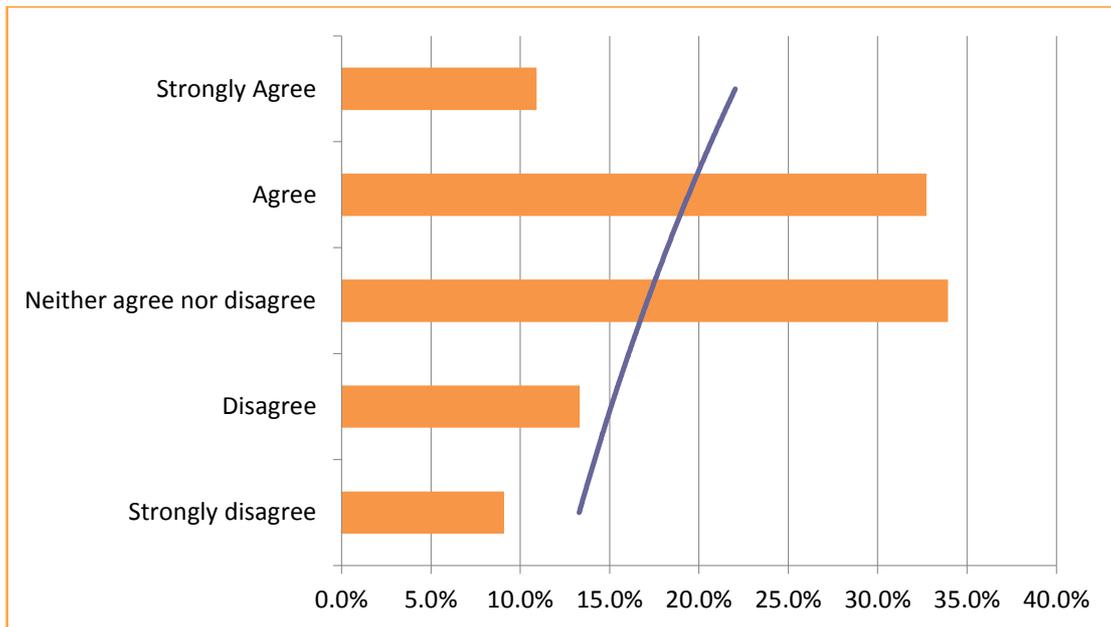


Figure 7-26: Testing The Promotion Of Creativity And Competitiveness Through Benchmarking Sectoral Performance (Question 26)

For Question 27, respondents were asked to state if they perceived the reliance on knowledge to be valuable for Qatar to gain a competitive advantage as an economy.

The rationale for asking this question was to ensure that respondents made aware of the bigger picture that the Vision has designed, as well as to ensure that they can see the end result of the push for operating in a KBE. Of the 284 respondents, only 165 answered Question 27, while 119 skipped it. The response to Question 27 was overwhelmingly high in support of the argument that there is a belief that competitive advantage is attainable with a knowledge base, as indicated by 49.09% of respondents (81). Additionally, 41.82% of respondents (69) agreed with the statement, and only 7.88 (13) could neither agree nor disagree; one individual strongly disagreed and another disagreed with the statement. Figure 7-27 shows these results.

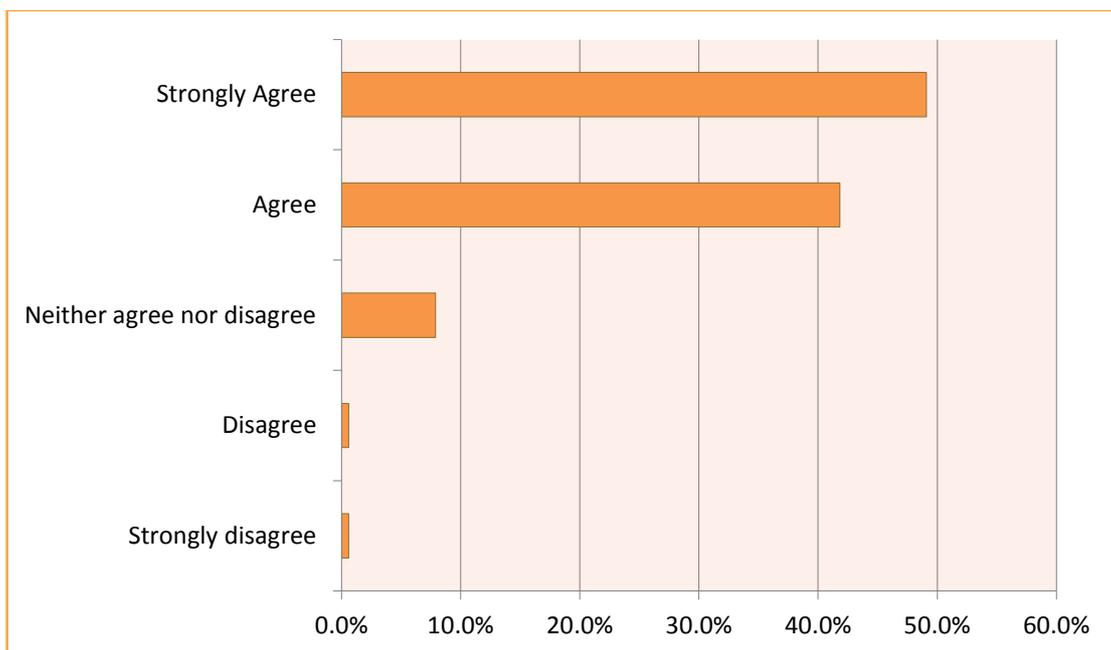


Figure 7-27: Testing The Perception That A Reliance On Knowledge Could Be Valuable For Qatar To Gain Competitive Advantage (Question 27)

For Question 28, respondents were asked to cite the means by which their dependence on knowledge could be supported in their respective organisations. The rationale for Question 28 was to identify the possible factors that have been known to be drivers of knowledge-based creation and implementation, so that respondents were able to choose what they felt could represent their interests. A total of 164 respondents answered the question, and 120 skipped it. Respondents were allowed to pick multiple answers, hence the summarised information presented in Figure 7-28 is an aggregate of all of the submissions made possible by respondents. The highest number of

respondents at 80.49% (132) felt that ‘leadership’ was the major enabler of dependency on knowledge. The second highest number, at 75.00% of respondents (123), picked the ‘human resource department’ as a cardinal factor in fostering knowledge dependency. The third highest number, at 74.39% of respondents (122), felt that ‘policy and strategy’ were the deal drivers for dependency on knowledge at the organisational level. Moreover, 56.10% of the respondents (92) chose ‘culture’, which indicated that organisational culture was a subset of the overall cultural attributes of the nation. If the culture can support knowledge dependency, then organisations can tap into retained knowledge.

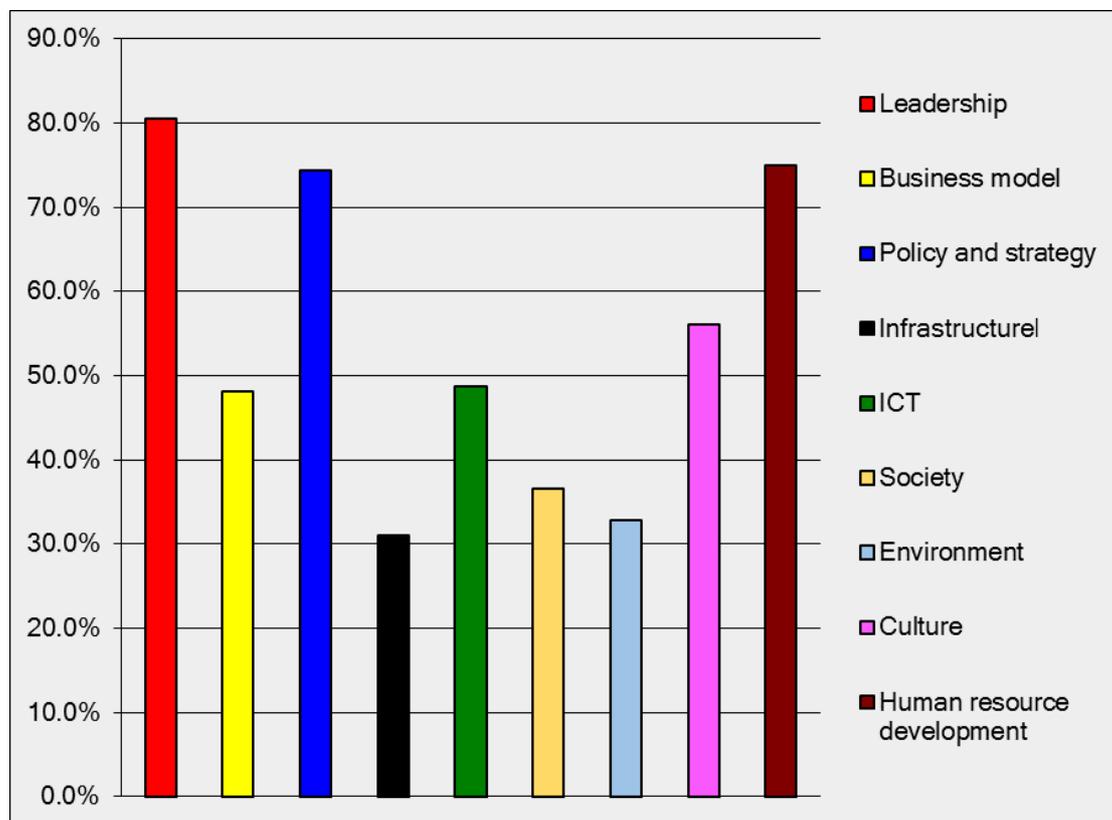


Figure 7-28: Testing The Perception That A Dependence On Knowledge Can Be Supported At An Organisational Level (Question 28)

For the lower tier of responses, 48.78% of respondents (80) chose ‘ICT’ as the essential factor in supporting knowledge dependency. Similarly, 48.17% of respondents (79) chose ‘business models’ where their organisations are able to develop their own business models that can support the promotion of knowledge dependency. Only 36.59% (60) chose ‘society’, meaning that the organisation mimics

or reflects social attributes; hence, if the society supports knowledge dependency then organisations would perform well too. Additionally, 32.93% respondents (54) picked 'environment', indicating that the general environment or the environment in the organisation has an impact on how it can depend on knowledge, while 31.10% (51) felt that 'infrastructure' was the important issue for knowledge dependency. Thus, it can be observed that the highest-ranked factors are related to how organisations are led, the human resources practices therein, and the policies or strategies in place. The rest of the factors could be considered generic because they cannot have a positive impact on knowledge if the organisation is unstable and has no leadership direction or overarching business strategy for employees to follow.

Question 29 assessed how respondents could rate the importance of the listed factors that are necessary to support the achievement of a knowledge-based economy in Qatar. Even though the question was self-explanatory, the rationale for Question 29 was to allow the respondents a chance to weigh the importance of key factors that typify a knowledge economy, as explained in the literature. A total of 167 respondents answered out of the possible 284, meaning that 117 respondents skipped the question. However, each factor had a different number of selections. Figure 7-29 summarises the aggregate scores for responses to Question 29, and it can be seen that a general pattern has been established whereby the factors have all been very highly ranked.

- (i) Leadership: 56.89% of respondents (95) perceived leadership to be of very high importance to the drive for creating a knowledge-based economy for Qatar. Another 25.75% of respondents (43) felt that leadership was a highly rated factor. The perception of leadership is high, but there is a need to assess how this issue has been covered in Vision 2030. If the leadership has not been visible at the organisational level, this could offer a clear link to the difficulties that have been encountered in implementing the transition to a knowledge-based economy;
- (ii) Top management: It was seen that 49.08% of respondents (80) felt that 'top management' was a very important factor in terms of supporting the achievement of a knowledge-based economy for Qatar. Some 28.83% of respondents rated this factor as high. Therefore, each organisation needs to have a strategic management team that is aware of Vision 2030 and is able

to steer the organisation towards the objectives of the vision for the country;

- (iii) Infrastructure: This factor was rated as very high by 39.38% of respondents (63), while 30.00% of respondents (48) rated it as high. It implies that, with the development of infrastructure, there is a greater likelihood that the economy would make a transition to a knowledge base mainly because infrastructure acts as a backbone to the economy;
- (iv) Human capital (education and training): This was rated as very high by 47.27% of respondents (78) while another 32.12% (53) rated it as high. Only 19.94% of respondents (23) rated it as moderate while another 4.24% (7) rated it as low. Human capital has been seen as an essential element for the economy in transforming from a carbon to a knowledge base, as highlighted in the literature. Vision 2030 recognised this issue by ensuring that there was provision for the development of human capital through education and training. However, the challenge has been to identify ways of channelling the Vision into the practical development of talent at the organisational level.
- (v) Culture: This was rated as a very high issue by 36.48% of respondents (58); another 30.19% (48) felt rated it as high. However, 24.53% of respondents (39) rated culture as moderate, while 5.66% (9) rated it as low. It is important to note that culture was not highly rated compared to other factors; this is because there was an argument for a more negative 'entitlement' or 'happy comfort zone' culture. Therefore, it can be argued that culture was a complex issue with regards to how the industry could turn the economy into a knowledge-based one using culture as a key factor.
- (vi) Innovation and research: These were rated as very high by 43.03% of respondents (71) while 30.91% (51) rated it as high. As a result, only 13.33% of respondents (22) rated the factor as moderate, while 10.91% (18) rated is as low. It shows a significant number of respondents failing to link innovation and research as critical factors to operating in a knowledge-based economy.
- (vii) Incentives: This factor was rated as very high by 37.89% of respondents (61), while another 29.19% (47) rated it as high. Furthermore, 22.36% of

respondents felt that incentives were only moderately able to impact the transition to a knowledge-based economy, and only 6.83% (11) felt that incentives could have a low impact on the economic transformation process. Incentives, as a factor, did not get the highest rating because they were seen as having been implemented already and having had poor results for local Qataris in terms of their uptake of leadership positions.

- (viii) Vision and strategy: As a factor, 47.24% of respondents (77) rated it as very high while 31.29% (51) rated it as high. Only 16.56% of respondents (27) felt that the vision and strategy were moderately influential to the transformation of the economy. The issue with the vision and strategy has been that the two are not well linked by many organisations. While Vision 2030 exists, the strategies at organisational levels are independent of it and this lack of linkage implies that there are difficulties in the operationalisation of the vision.
- (ix) Information and communication technology (ICT): ICT was rated as very high by 39.88% of respondents (65) while 36.81% (60) rated it as high. However, 18.40% of respondents (30) felt that ICT was only moderately vital to the transformation of the economy of Qatar and 3.68% (6) felt that ICT had a low impact on the process. The rating for ICT could have been low compared to other factors because it was found that ICT has been pervasive in the economy such that it cannot be used as leverage on its own but rather as a factor that needs to be combined with others.

The factors examined by Question 29 were ranked using the Kendall's W test, which involves ranking the driver and evaluating the level of agreement between the respondents (see Figure 7-29). The ranking of factors was vital to determine the most critical factors to use in a multiple linear regression testing for the co-linearity and relationships between factors affecting the implementation of the KBE (Moore et al., 2011). The major factor that supports the KBE is leadership, with a Kendall's W score of 5.75. Top management was ranked second with a score of 5.38 while infrastructure was ranked third with a score of 5.29.

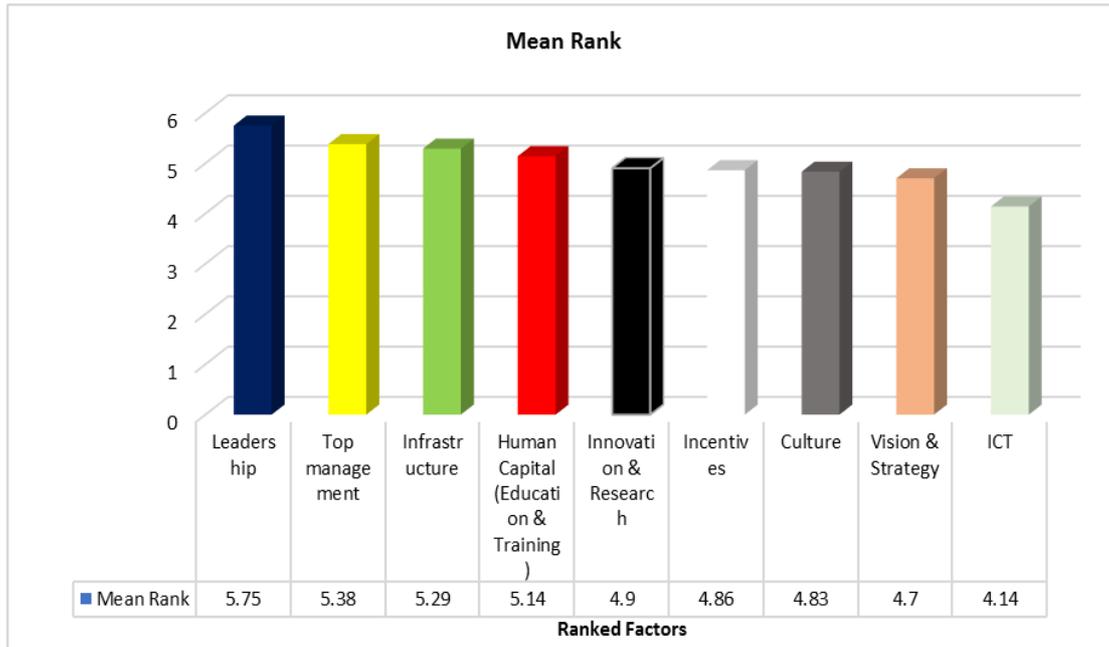


Figure 7-29: Ranking The Importance Of Selected Factors To The Establishment Of A Knowledge-Based Economy For Qatar (Question 29)

Under Question 30, respondents were asked to state if they believed that Qatari cities were designed to support sustainable economic development. The rationale behind the question was to assess if the respondents linked the current infrastructure development to the sustenance of the economy in the near future. Of the 284 respondents, only 165 responded to the question, and 119 skipped it. The responses summarised in Figure 7-30 shows that the highest score was ‘neither agree nor disagree’ at 29.70% (49 respondents); another 29.70% (49) agreed; 18.79% (31) disagreed; 10.91% (18) strongly disagreed, and 10.91% (18) strongly agreed. As such, there is no convincing evidence from the responses to Question 30 to suggest that city infrastructure is seen as a key factor in the sustenance and diversification of the Qatari economy.

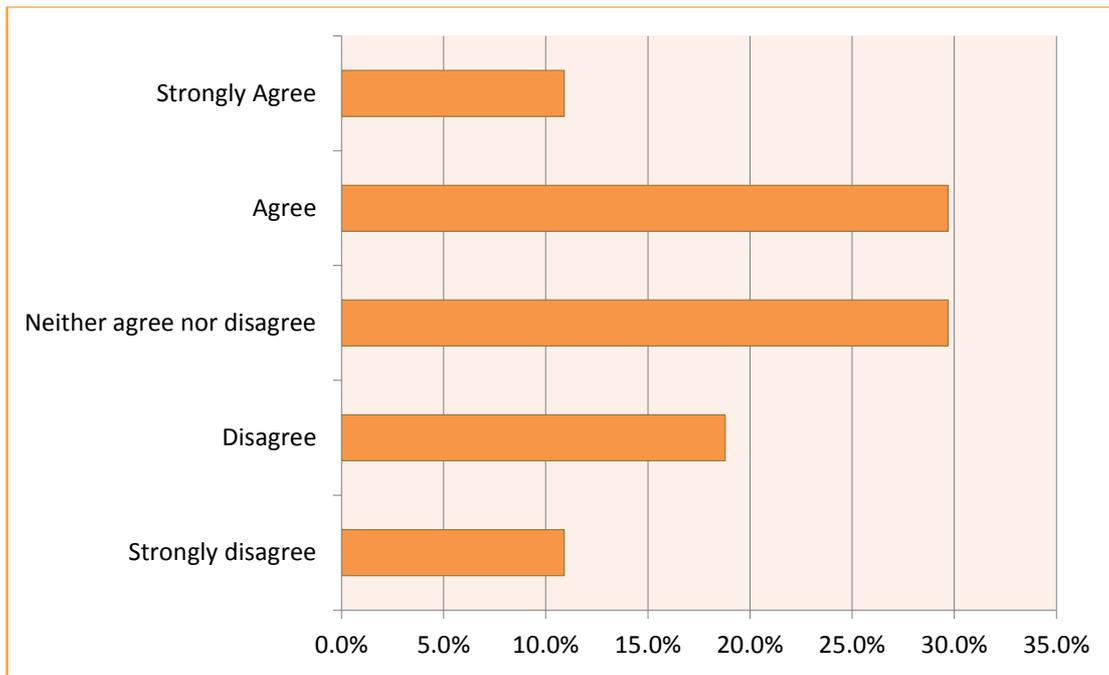


Figure 7-30: Qatari Cities Designed To Support Sustainable Economic Development (Question 30)

Under Question 31 respondents were asked to rate the culture of allowing for the creation of knowledge at the organisational level. The rationale for the question was provided within the literature review where organisational culture and knowledge creation were found to be important for organisations in operating in a knowledge economy. Out of the 284 respondents, only 165 responded to Question 31, and 119 skipped it. The information summarised in Figure 7-31 shows that 41.82% of respondents (69) agreed with the proposition that the culture in their organisation allows for knowledge creation while another 28.48% (47) neither agreed nor disagreed and 11.52% (19) strongly agreed. Furthermore, 9.09% of respondents (15) disagreed while 9.09% (15) strongly disagreed.

The responses to Question 31 show that there is strong evidence that the culture of knowledge creation is visible within many organisations. The challenge, however, is to link the knowledge creation capabilities of companies to a force that could make a positive impact on the economy. In such a situation, the leadership at each organisation would have to institute measures that could be aimed at implementing the Qatar Vision 2030.

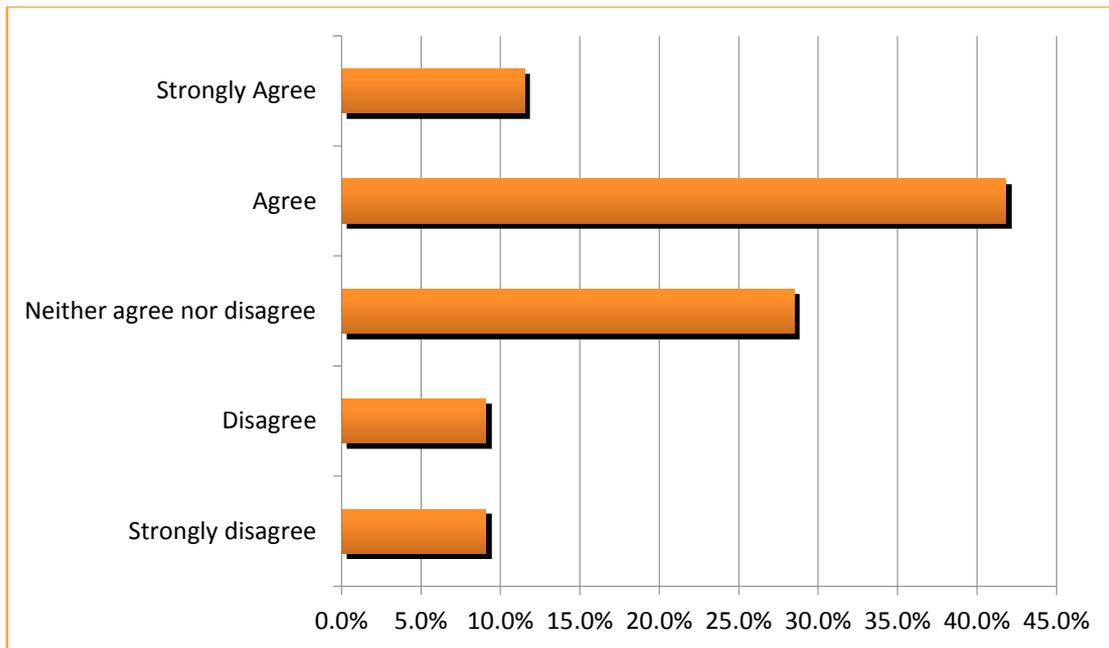


Figure 7-31: The Culture In Your Organisation Allows For Knowledge Creation (Question 31)

Question 32 was designed to work in tandem with Question 31 because it acted as a follow-up question to the need for leadership and authority in the organisation in supporting the scope of the Qatar National Vision 2030. In other words, the rationale for Question 32 was to bring the issue of Vision 2030 for Qatar closer to the strategic leadership of the individual organisations. This was based on the realisation that, without strategic leadership at an organisation, any operationalisation of the Vision would be complex, if not theoretical. Of the 284 respondents, only 165 responded to Question 32, and the remaining 119 skipped it. The responses to Question 32 have been summarised in Figure 7-32 which shows that 44.24% of respondents (73) agreed with the argument that leadership and authority are available to support the scope of the Qatar National Vision 2030; however, 23.64% (39) neither agreed nor disagreed with this argument. This suggests that they are doubtful that sufficient leadership and authority exist to support the National Vision. Further responses in Figure 7-32 show that 21.21% of respondents (35) strongly agreed with the argument whilst 6.67% (11) disagreed and 4.24% (7) strongly disagreed.

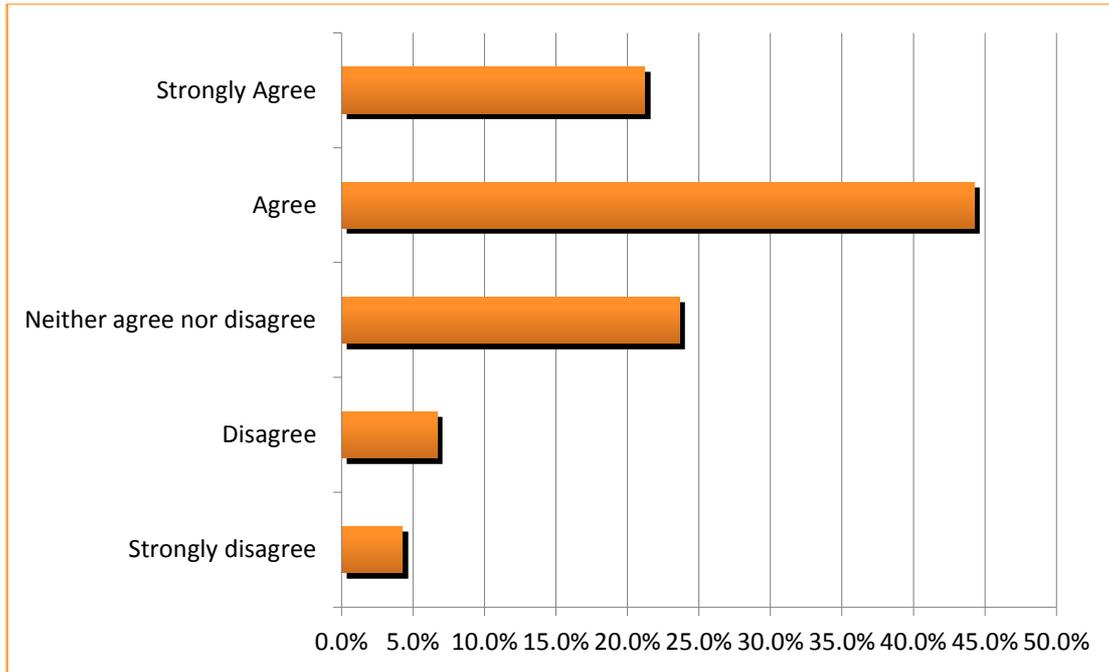


Figure 7-32: Leadership And Authority Are Available To Support The Scope Of The Qatar National Vision 2030 (Question 32)

There is a perception that the Vision is capable of being implemented at the organisational level; however, there are very few organisations that have earmarked talent development programmes for local Qataris so as to ensure that they can attain the level needed to maximise the use of knowledge in their portfolios.

Question 33 was designed to assess the role of new technology in supporting the implementation of Vision 2030. Of the 284 respondents, 166 answered Question 33 while 118 skipped it. The summarised data in Figure 3-33 shows a high rate of approval for the reasoning that technology has been central to the operationalisation of Vision 2030; this is because 51.81% of respondents (86) agreed with the statement while 37.35% (62) strongly agreed with it. Only 8.43% of respondents (14) neither agreed nor disagreed with the statement, whilst three individuals disagreed and one person strongly disagreed. The response to Question 33 is overwhelmingly clear that the investment in technology at the organisational level has been seen as a significant sign that workers can operate at the knowledge level. In addition, there has been an adoption of technology-centred support for industrial activities, especially the use of smart innovations to industrial activities.

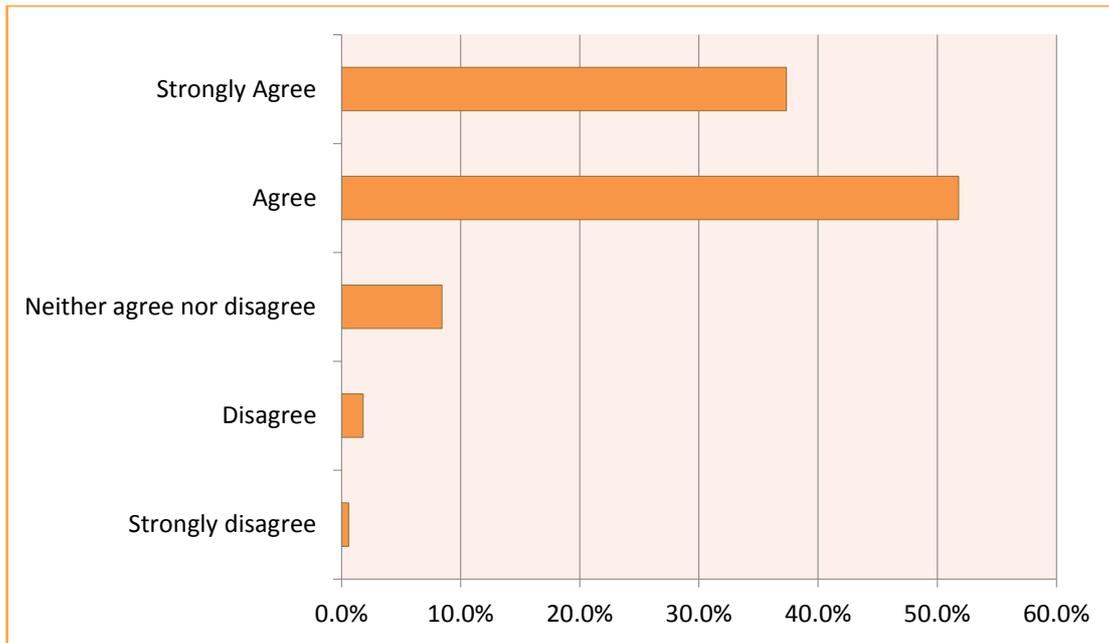


Figure 7-33: New Technology Is Supportive Of Vision 2030 (Question 33)

Under Question 34, it was necessary to assess whether respondents were able to link the issue of knowledge in their organisation to the performance of the economy. Therefore, the question asked them to state if their organisation created knowledge that is worth capturing and sharing within the economy. Inasmuch as knowledge can be used as a competitive advantage, the summation of knowledge hubs from various sectors is vital for an economy. Even though there were 284 respondents to the survey, only 165 answered the question and 119 skipped it. Their response has been summarised in Figure 7-34, where 46.06% of respondents (76) agreed with the argument that the uptake of knowledge from organisations and their hubs was a critical issue. Some 26.06% of respondents (43) neither agreed nor disagreed, and 14.55% (24) strongly agreed with the statement. Only 6.67% of respondents (11) disagreed while the remaining 6.67% (11) strongly disagreed.

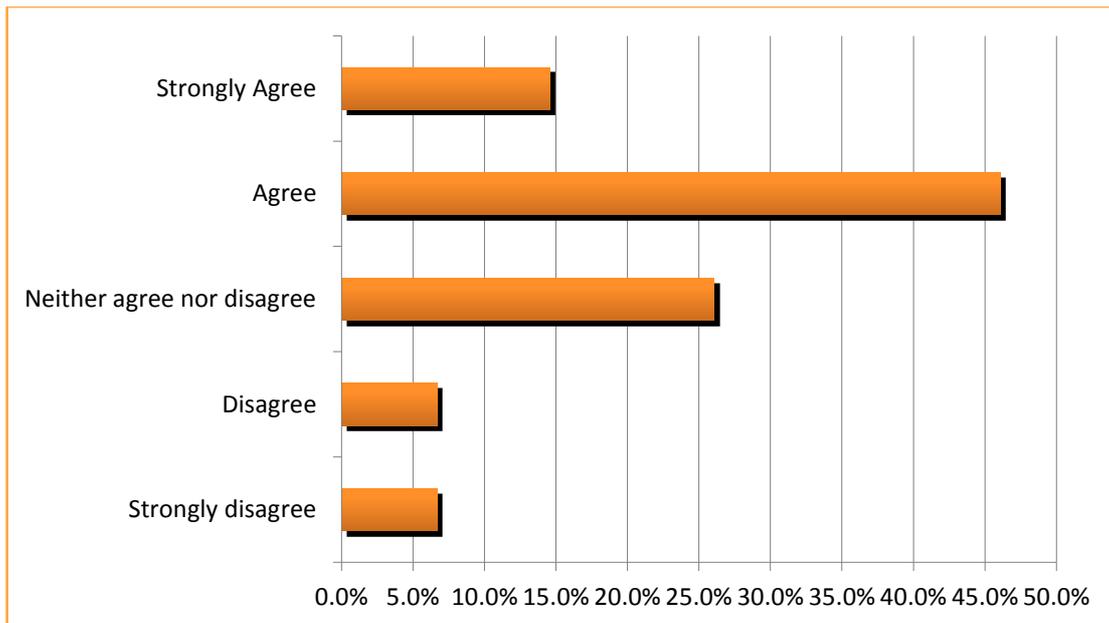


Figure 7-34: Organisation-Created Knowledge Is Worth Capturing And Sharing Within The Economy (Question 34)

The overall indication is that there is a belief that capturing knowledge from the operations of organisations is an important part of capturing data and knowledge that can then be passed on to the industry at large. However, there are still a significantly large number of respondents who did not believe that capturing knowledge and information at the organisational level could be useful to the creation of a knowledge economy.

7.6 Section Four: Talent Management Strategies that Support a Knowledge-based Economy

The literature review in Chapter Five indicated that organisations that had developed talent management as a strategic issue had a positive impact on the creation of learning environments within those organisations. Therefore, Section Four of the questionnaire contained questions related to talent management strategies that support organisational learning. This section – covering Questions 36 to 50 – were exclusive to CEOs, directors and strategic managers, and therefore addressed 69 respondents. The main issue here was that there were two sample sizes; Sections One to Three were general and accessible to every respondent, but Section Four was an addition and restricted by the respondent’s position. Question 35 was the restrictor question in

that it only invited responses from CEOs, directors and managers. It was, therefore, essential that perceptions of talent management were assessed from the respondent's perspective so as to create a comparison between the secondary information and the comments from the survey. Question 35 asked respondents to state their official position at the time of the survey. Respondents were not allowed multiple selections to ensure that roles were clarified from the onset. Out of the total 284 respondents, only 158 answered this question and the remaining 126 skipped it.

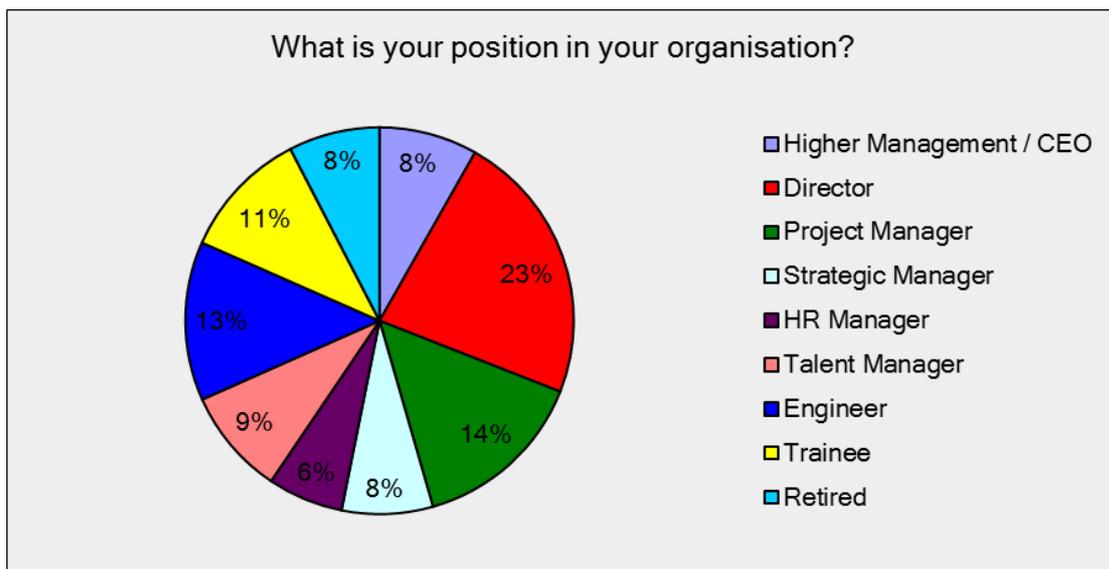


Figure 7-35: Official Position At The Time Of The Survey (Question 35)

The responses, shown in Figure 7-35, list many roles; however, 22.76% of respondents (36) worked as 'directors'; 14.56% (23) worked as 'project managers'; 13.29% (21) worked as 'engineers'; 10.76% (17) as 'trainee workers'; 8.86% (14) worked as 'talent managers'; 8.23% (13) worked at a 'higher management or chief executive level'; 7.59% (12) worked as 'strategic managers' while 7.59% of respondents (12) were retired but still involved in various advisory capacities within organisations; lastly, 6.33% of respondents (10) worked as 'human resources managers'. The responses to Question 35 show that there were more directors in the organisations that responded to the question than human resources managers, and that only 14 individuals worked as talent managers. Therefore, the number of workers practicing human resource management and talent management was significantly low for an industry that wishes to promote talent amongst local Qataris. Unless directors

are heavily involved in the development of talent, the low numbers of specific workers assigned to the management of talent could be a key signal of the low level of importance attributed to talent at the industrial level.

Other job functions that participated in the research included: finance manager, HR officer, researcher administrative affairs, head of administration affairs, public relations manager, government relations officer, manpower planning officer, budget manager, teacher, senior researcher, executive committee secretary, research analyst, policies analysis specialist, auditor, development specialist, lawyer, senior public relations co-ordinator, training-specialist, specialist training services, fourth resources planning department, head of section , head of administration, department manager, head of contracts and procurement, PMO compliance manager, head of section, PR and communications, management service coordinator, paralegal, analyst and advisor.

Under Question 36, respondents were asked if the development of human resources in Qatar could be valuable to the establishment of a competitively advantaged economy. The rationale for the question was to assess how respondents linked human resource development to sustainable competitiveness at the economic level of Qatar. Out of the 284 respondents, 217 skipped this question, thus only 67 answered. The responses in Figure 7-36 show that 64.18% of respondents (43) strongly agreed with the question that human resource development could lead to the economy being competitive, while 34.33% (23) agreed and only a single respondent disagreed. Overall, there is support for the argument that human resource development could lead to competitiveness; however, considering that 217 people skipped the question, it can be difficult to develop high confidence in the response.

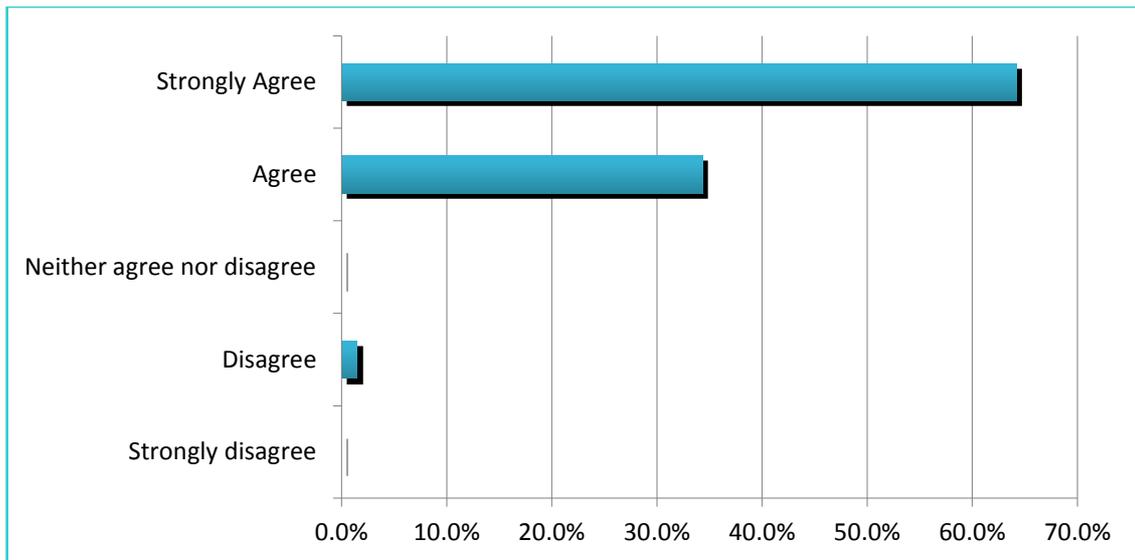


Figure 7-36: Testing The Perception That Human Resource Development Could Be Cardinal For Qatar To Gain Competitive Advantage (Question 36)

Question 37 was pivotal to the issue on which the research was centred, namely the argument that Qatari organisations do not use talent management to nurture and develop local talent. The rationale for asking the question was to follow up on the perceptions of human resource development with a direct link to how Qatari organisations apply the issue to their situations. Out of the 284 respondents to the survey, only 68 were able to participate in responding to the question, thus 216 skipped it. The responses in Figure 7-37 show that 36.76% of respondents (25) agreed with the question that local organisations do not invest in development of their talent, whilst 20.59% (14) strongly agreed. However, 27.94% of respondents (19) neither agreed nor disagreed, suggesting that they were not sure. Only 11.76% of respondents (8) disagreed with the question while 2.94% (2) strongly disagreed.

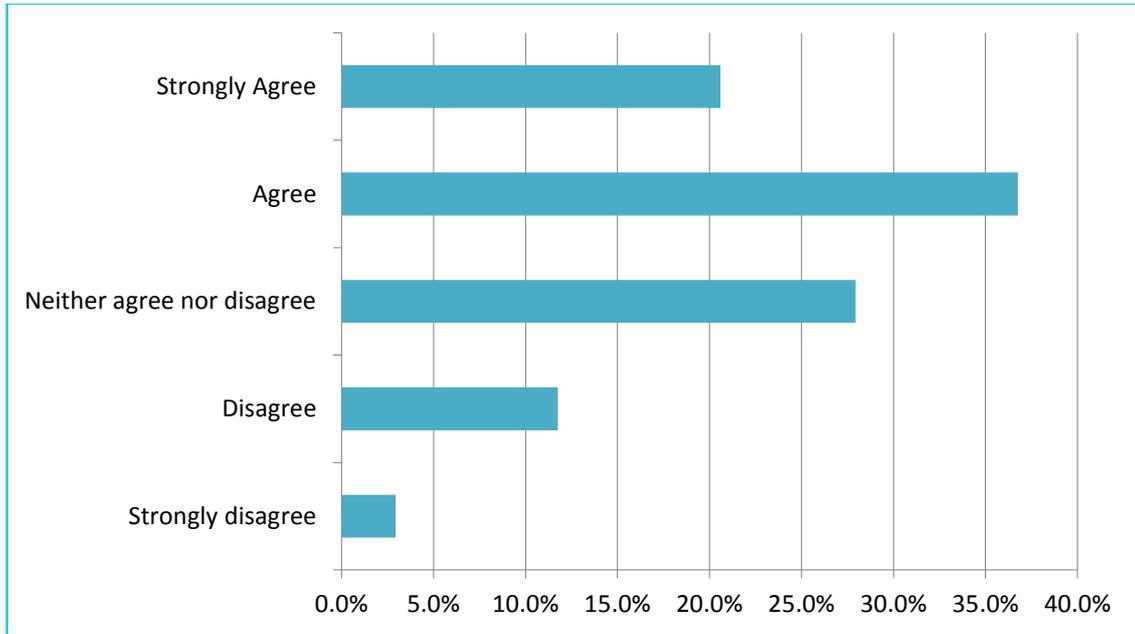


Figure 7-37: Qatari Organisations Do Not Use Talent Management In Nurturing And Developing Local Talent (Question 37)

There was consistency in terms of the low number of respondents answering Question 37, as was the case with Question 36. However, the information in Figure 7-37 shows that there was a strong belief that local organisations have not been investing in the development of local talent. This perception contradicts the view that human resource development is viewed as very important to the competitiveness of an economy. Thus, the implication is that, while there is recognition of the importance of human resources development, there is little action at the organisational level in terms of implementing programmes related to talent management.

Question 38 listed a number of competencies that would be assessed in terms of their centrality to the identification of talent at the organisational level. It was important to test the perception of competencies that are used to identify talent in the organisation because these could act as enablers or inhibitors to local Qataris when companies are striving to implement elements of Vision 2030. In descending order, 69 respondents ranked the competencies as summarised in Figure 7-38. Some 215 respondents skipped the question, and, as a result, it can be argued that consistency prevailed in terms of the number of people that responded to Section Four of the questionnaire. The highest ranked competency was 76.81% (53) for leadership, followed by 68.12%

(47) for teamwork, and 63.77% (44) for innovation and creativity. In the second tier contained the 50% scores: which indicated 55.07% (38) for decision making; 55.07% (38) for work ethics; 55.07% (38) for job expertise and skills; and 50.72% (35) for positive energy and attitude. The third tier (the 40% to 49% range) comprised 49.28% (34) for motivation and passion; 47.83% (33) for dedication and dependability; 46.38% (32) for strategy execution; 44.93% (31) for communication; 42.03% (29) for potential for growth and development; and 42.03% (29) for integrity. The third-tier range was between 30% and 39% and comprised of 39.13% (27) for flexibility; 37.68% (26) for delivery of tasks; 33.33% (23) for commitment to the mission; and 28.99% (20) for customer focus.

The responses to Question 38 indicated that leadership, teamwork, innovation and creativity are critical attributes that individuals need to demonstrate if they are to be placed on talent-management programmes in their organisations. However, when comparing the responses to Question 38 with that of Question 23, it can be difficult to understand how disinterested local people could sufficiently demonstrate leadership, innovation and creativity in the workplace in order for their company to place them on talent development programmes. Under Question 23, it was observed that the general culture of the local workforce was to be content with their conditions of service and the highest level of organisational management positions. In such a situation, the workforce can only demonstrate factors, such as work ethics, integrity, motivation, expertise and the like, and these are not enough to merit talent development.

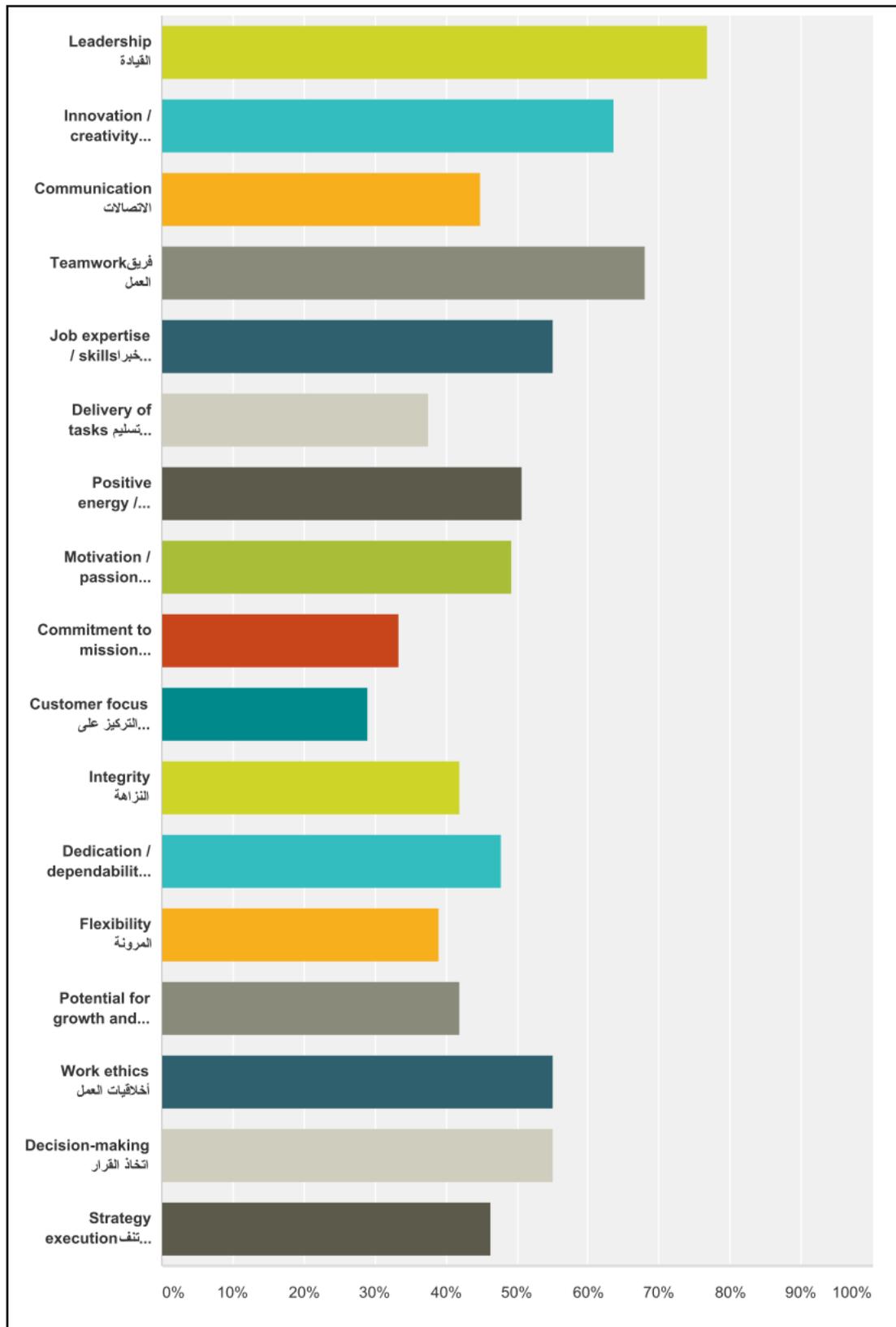


Figure 7-38: Testing The Competencies Used To Identify Talent In Organisations (Question 38)

Under Question 39, respondents were asked to state their opinion on the argument that Qatari organisations do not recognise intellectual capital as a local asset base. The rationale for this question was to establish a direct link between actions at the organisational level and the prospects of developing talent. Out of the 284 respondents, only 69 answered the question and the remaining 215 skipped it. The responses in Figure 7-39 indicate that 36.23% (25) agreed with the argument that there has been poor recognition of intellectual capital at the local level. However, 26.09% (18) neither agreed nor disagreed, while 20.29% (14) disagreed with the argument. Only 17.39% (12) strongly agreed with the notion of a lack of identification of intellectual capital in Qatari organisations.

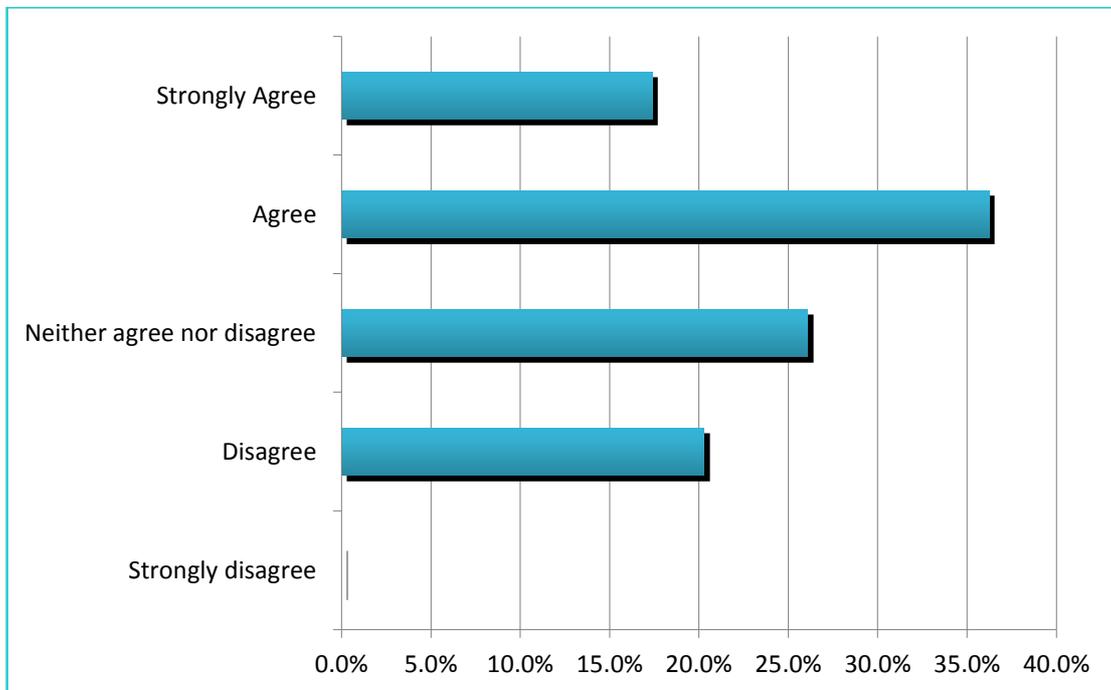


Figure 7-39: There Is Poor Recognition Of Intellectual Capital As A Local Asset Base (Question 39)

Analysis of the responses to Question 39 show that only 20% of respondents (14) felt that their organisation was actively involved in the process of identifying intellectual capital at the local level. This number is highly insignificant if considering that there were a total of 284 research participants; this suggests that the issue of intellectual capital is not seen as an important factor in the way organisations are managing their talent.

A follow up-question (Question 40) asked for a selection of factors that Qatari organisations felt were responsible for identifying local talent. It was designed to act as a way of establishing the link between responsibility and decision making for the identification of the local people to be developed as future leaders in businesses and other organisations. Only 69 responded, and 215 skipped the question. Figure 7-40 indicates that 28.99% (20) respondents felt that the human resource departments for their organisation were responsible for selecting talent. Another 24.64% (17) felt that leadership or top management were responsible, while 20.20% (14) felt that the government was responsible. Furthermore, 13.04% (9) of respondents felt that line managers were responsible, while 8.70% (6) felt that it was the legislative structure; only 4.35% (3) felt that each individual was able to choose their way forward if they were to be developed.

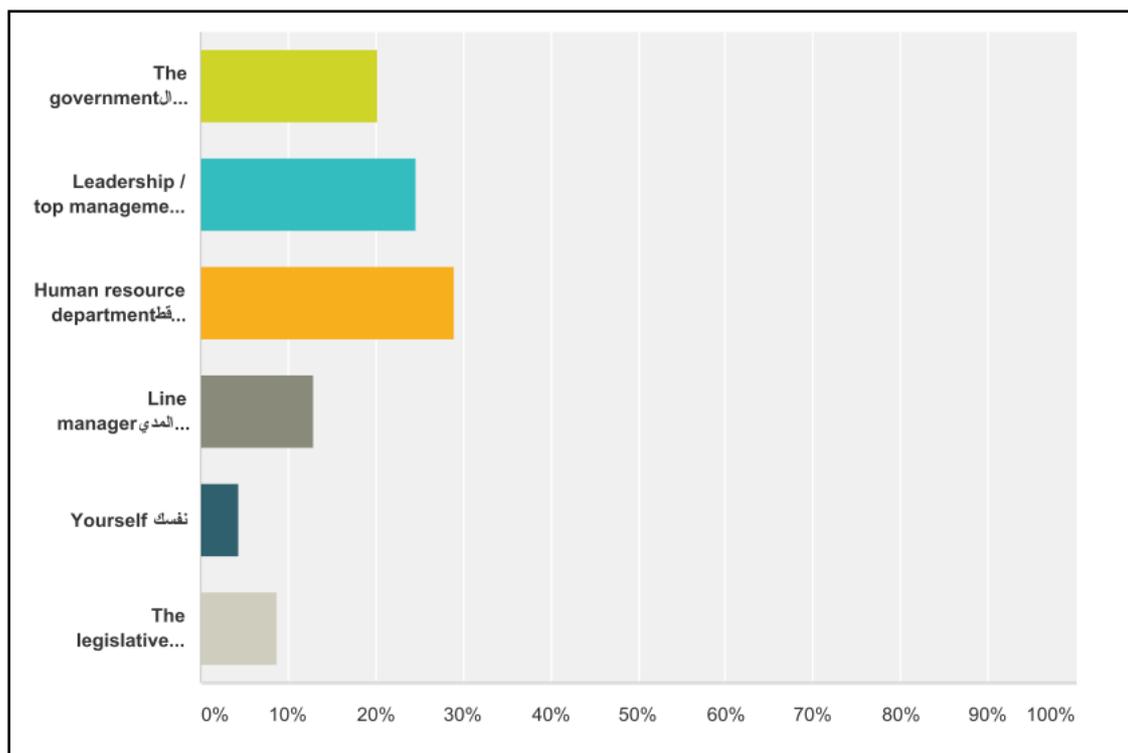


Figure 7-40: Perceptions Of The Responsibility For The Identification Of Talent At A Local Level (Question 40)

The response to Question 40 rates three factors – human resource departments for their organisation; leadership or top management; and the government – as key determinants of who should be responsible for selecting talent. This response tallies

with the response to Question 38 where leadership is seen as a fundamental issue. Leadership can come from the government, the organisation itself, or from human resource practitioners. However, these three arms of the organisation and/or economy are rarely involved in the micromanagement of people wherein the talent is embedded.

In Question 41, a list of factors was provided in order for respondents to rank them based on a Likert scale of 'very low, low, moderately, high, and very high'. Only 69 responded from a total of 284, meaning that 215 skipped the question. Figure 7-41 shows that a high rate of potential to develop was considered as the basic issue; the rest were considered moderate. This means that leadership skill, or being in middle management, or working as an engineer or as a graduate employee or as an administrative officer, offered a similar strategic opportunity for local Qataris to be developed in their organisation.

Furthermore, a mean score of 3.84 for the Kendall's coefficient of concordance for leadership positions or the executive team saw this grouping ranked first. Higher potentials within the organisations ranked second with a score of 3.74, while middle management ranked third with a score of 3.62.



Figure 7-41: The Ranking Of Identified Behaviour To Support The Strategic Objectives Of An Organisation (Question 41)

Question 42 asked respondents to state if they agreed with the argument that talent management is important for the development of a KBE that is able to support the Qatar National Vision 2030. The rationale for the question was to assess the perception of the link between the QNV 2030 and the development of a knowledge-based economy. If these are separated, there is no way that an economy could be developed, and achieving that goal for 2030 would be even harder for Qatar. Only 69 responded out of a total of 284, meaning that 215 skipped the question. Figure 7-42

shows that 44.93% of respondents (31) strongly agreed with the statement; another 44.93% (31) agreed, while 8.70% of respondents (6) could neither agree nor disagree. Only a single respondent disagreed with the argument for Question 42.

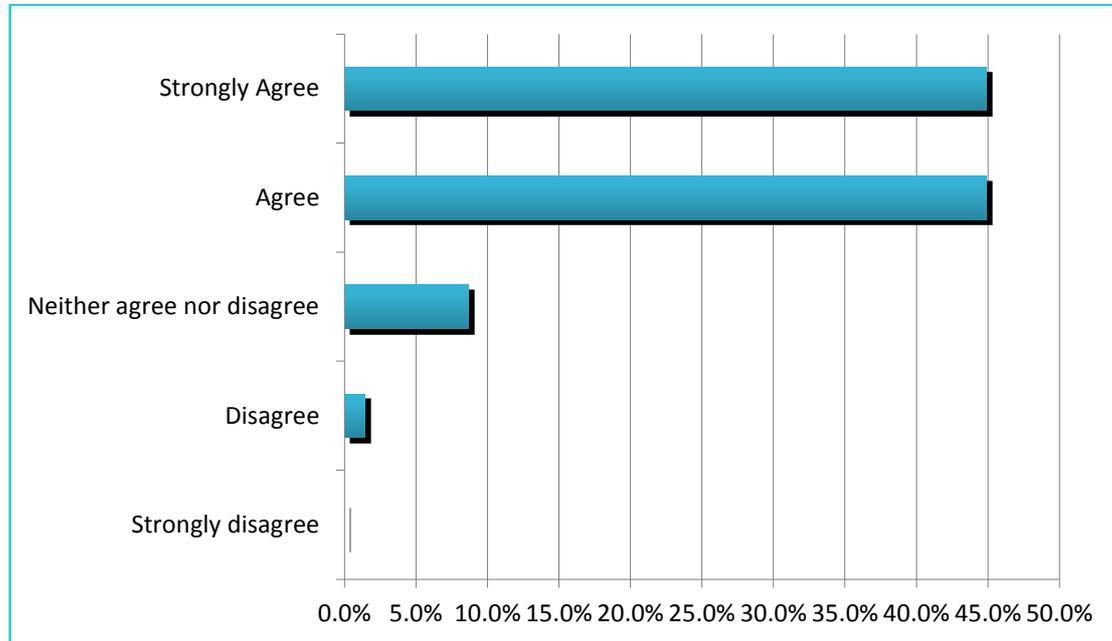


Figure 7-42: Testing The Perception That Talent Management Is Vital To The Establishment Of A KBE For Qatar’s National Vision 2030 (Question 42)

Figure 7-42 demonstrates a clear understanding that there is a link between the development of talent that could nurture the growth of a knowledge-based economy; this would eventually lead to the achievement of the QNV 2030 objective. The realisation of this fact is inescapable but the implementation of the development process is not in sync with the realisation.

Question 43 took the form of a statement to which respondents could provide an opinion. It stated that, ‘Your organisation has a human resource development strategy’. The statement was aiming to test how the organisation would have tapped into the QNV 2030 by setting up its own human development strategy as a response to government initiatives aimed at developing Qataris. Only 69 responded out of a total of 284, meaning that 215 of them skipped the question. Figure 7-43 shows that 34.78% of respondents agreed with the statement that their organisation had a human resource development strategy, while 26.09% of respondents (18) could neither agree

nor disagree with the statement. Furthermore, 15.94% of respondents (11) strongly agreed while 11.94% (11) disagreed and only 7.25% (5) strongly disagreed with the statement, suggesting that their organisation had no strategy to develop human resources.

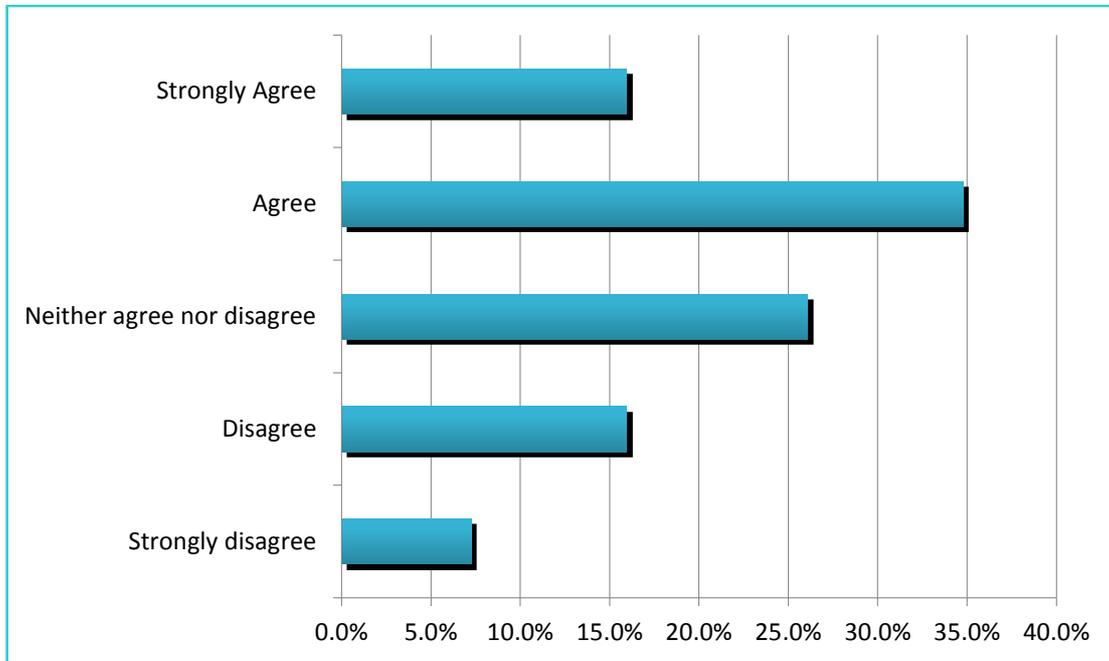


Figure 7-43: Testing If An Organisation Has A Human Development Strategy (Question 43)

There is a realisation that, even if organisations have human resources personnel working at various human resource sections and operating at varied levels of management, there is no guarantee that they have developed a deliberate strategy to develop human resources so as to implement the QNV 2030 elements that promote the development of local Qataris. It can therefore be argued that there is a mismatch between the aspirations of the QNV 2030 and the actual practice at the industry level.

Question 44 took the form of a statement, which asked respondents if, ‘their organisation has a talent identification programme’. The question was necessary because it offered a chance for respondents to reflect on their own organisation about the talent identification process and how this could be tied with the QNV 2030. Only 67 responded out of a total of 284, meaning that 217 skipped the question. Overall, 34.33% of respondents (23) felt that they were not sure if there was a talent

identification process in their organisation while 29.85% (20) agreed that their organisation had a talent identification process and 13.43% (9) strongly agreed with the statement. Another 13.43% of respondents (9) disagreed with the statement, and only 8.96% (6) strongly disagreed that their organisation had a system of identifying talent – see Figure 7-44 for the results.

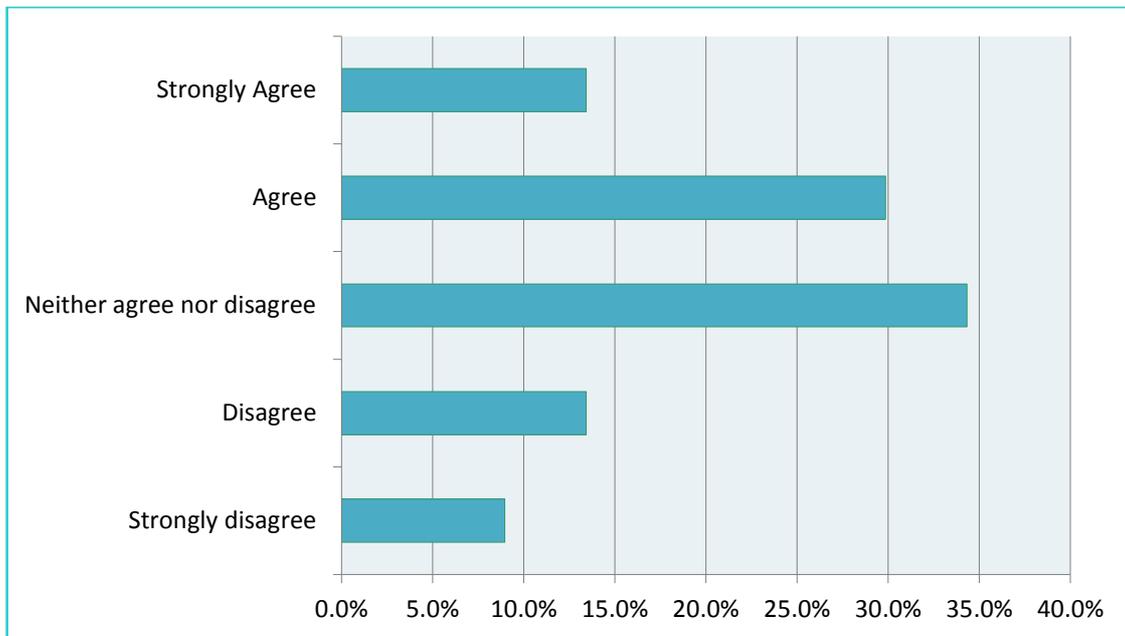


Figure 7-44: Testing Whether An Organisation Has A Talent Identification Process (Question 44)

The overall pattern identifiable from the responses to Question 44 is that only 29 respondents' organisations had a talent identification process in place. The others were not sure if they had any such programme. It can be concluded that overall talent identification is not widely practised at the industry level in Qatar.

Question 45 posed the statement, 'Your organisation selected people to develop as future talent for the company'. This question was designed to follow up on Question 44 but asked in a different way in making it more obvious to respondents. The idea was similar, to assess if an organisation was selecting people to for potential future leadership of the organisation. The alternative would be to assess if the organisation allowed for the natural progression of workers to higher levels of management through experience and longevity in the organisation. Only 68 responded out of a total

of 284, meaning that 216 skipped the question. In total, and as shown in Figure 7-45, 42.65% of respondents (29) agreed with the statement, meaning that they were sure that there was a system of selecting people to develop, either through promotion or other mechanisms. However, 19.12% of the respondents (13) disagreed with the statement, while 17.65% (12) neither agreed nor disagreed. Only 11.76% of respondents (8) strongly agreed with the argument that there was a mechanism for developing workers; however, 8.82% of respondents (6) strongly disagreed.

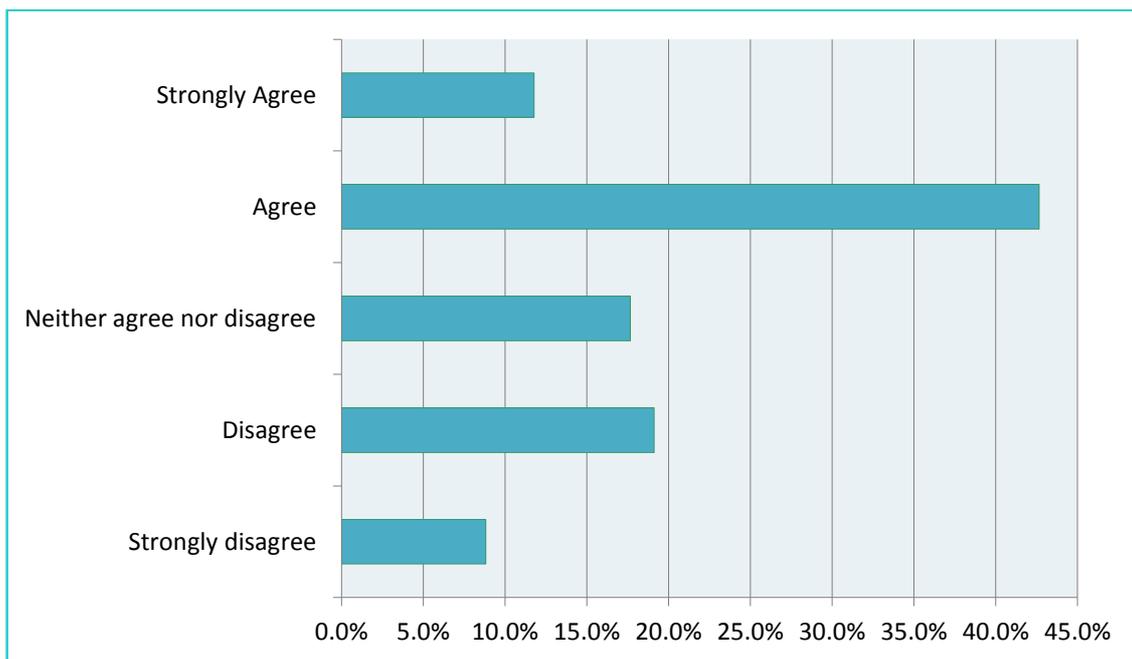


Figure 7-45: Organisations Selecting People To Develop As Future Talent For Their Company (Question 45)

The response to Question 45 tallies with that of Question 44 because the number of respondents who could associate a specific programme aimed at developing workers into future key talent for the organisation was relatively small compared with the number of respondents who participated in the survey. In the case of Question 45, 37 respondents could identify that there was a system whose purpose was to develop future leaders in their organisation.

Question 46 was also a follow-up to Question 45; it aimed at assessing if there was a strategic programme for the development of talent – an approach similar to graduate schemes aimed at talent development – as a part of human capital development. Only

68 responded out of the total of 284, meaning that 216 skipped the question. Only 33.82% of the respondents (23) agreed with the question, whilst 20.59% (14) disagreed and 26.47% (18) neither agreed nor disagreed. Additionally, 11.76% of respondents (8) strongly agreed while 7.35% (5) strongly disagreed that a mechanism of strategic programmes aimed at developing talent existed within their organisation – see Figure 7-46 for a summary.

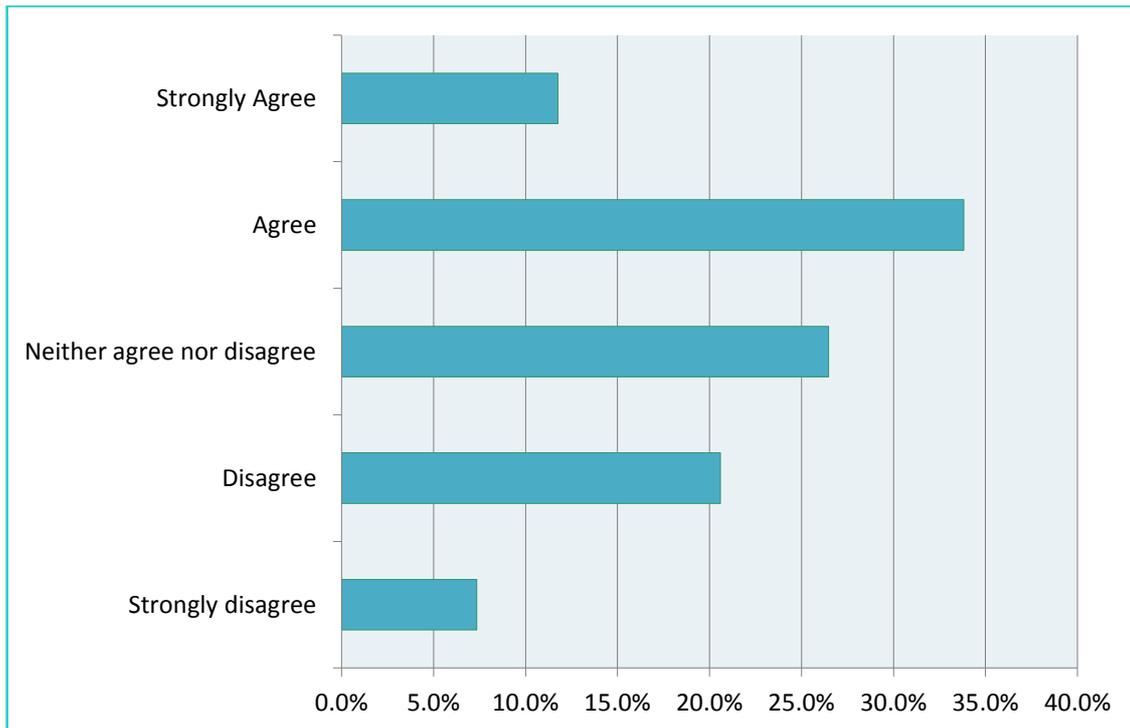


Figure 7-46: Testing The Availability Of Strategic Programmes For The Development Of Own Talent (Question 46)

Question 47 stated that, ‘a framework or plan is required to run the business for a knowledge-based economy’ in Qatar. The rationale for the question was to assess if respondents were aware of the need to bridge the gap between government policy under the QNV 2030 and the strategic approach that individual organisations take in order to operate in a knowledge-based economy. If the business does not plan to operate in such a way that it would be seen to implement elements of the QNV 2030, it would be considered as supporting the status quo.

Only 67 responded out of a total of 284, meaning that 217 skipped the question. As shown in Figure 7-47, the response to the question was supportive of the argument in that 35.36% of respondents (24) agreed with it and 19.40% of respondents (13) strongly agreed with it. However, 28.36% of respondents (19) were not sure if this was needed, whilst 8.96% (6) disagreed with the supposition that there was a need for a framework or plan to run businesses specifically for a knowledge-based economy in Qatar. Finally, 7.46% of respondents (5) strongly disagreed with this statement.

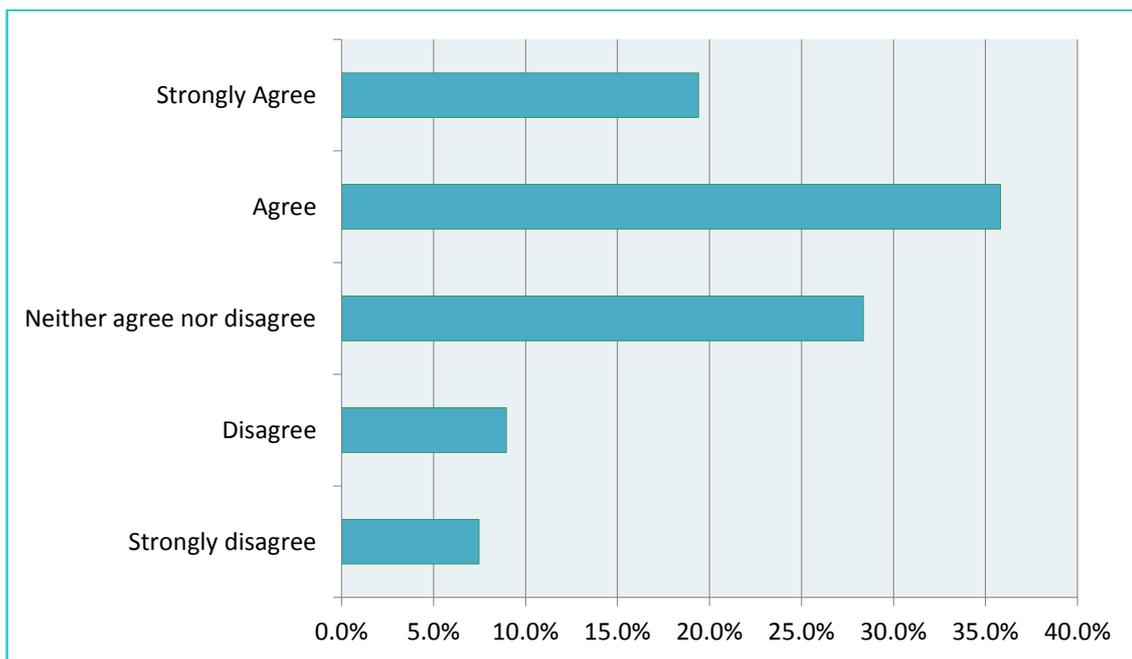


Figure 7-47: Testing The Argument That A Framework Or Plan Is Required To Run A Business For A Knowledge-Based Economy In Qatar (Question 47)

Respondents who were aware of the need to implement the QNV 2030 felt that, without a framework or a plan, it was impossible for an organisation to put into practice what the Vision was striving to achieve. Without the framework, organisations have been left to find a way to develop their strategies for talent management and human resource development.

Question 48 was also designed as a statement, which presupposed that organisations have developed their own strategies to motivate their workforce in order for them to participate in the QNV 2030. This question was intended to assess how individual

organisations were selling the idea of the government Vision to their workforce. Only 68 responded out of a total of 284, meaning that 216 skipped the question.

The responses are represented in Figure 7-48, which shows that 36.76% of respondents (25) agree with the supposition that their organisation has been motivating them to implement the vision, whilst 25.00% (17) could neither agree nor disagree, and 17.65% (12) disagreed. Furthermore, while 14.71% of respondents (10) strongly agreed, 5.88% (4) strongly disagreed with the argument that there were motivations from their employers so that workers could strive to implement the QNV 2030.

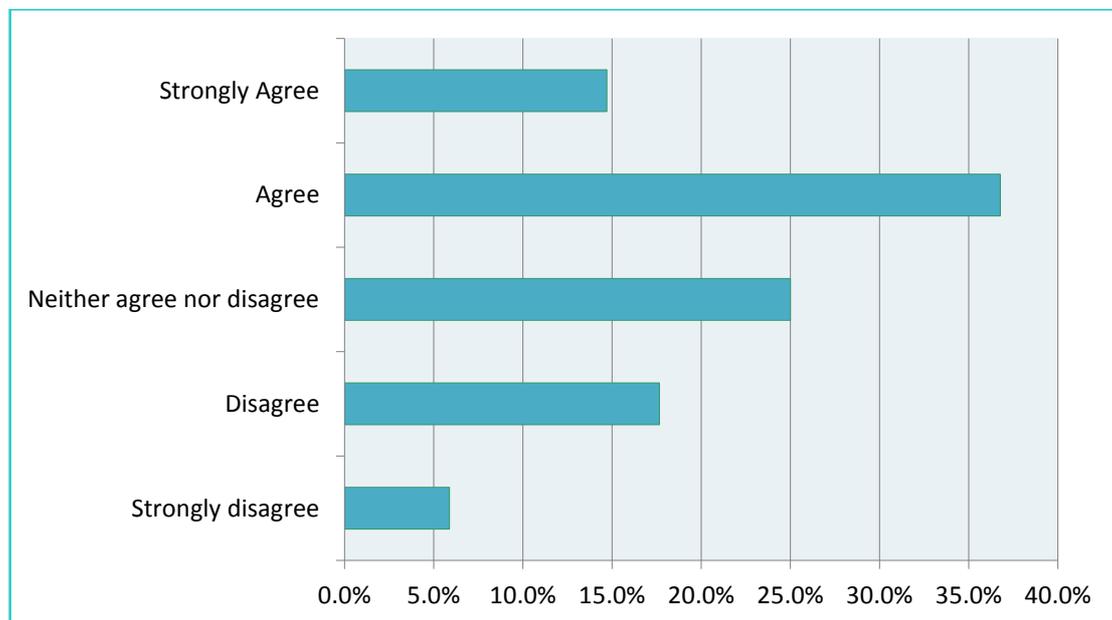


Figure 7-48: Organisations Develop Their Own Strategies To Motivate The Workforce In Order For Them To Participate In The QNV 2030 (Question 48)

The response to Question 48 offers clear support for the QNV 2030; however, organisations have not been detailing the form of motivation or strategy used in order to encourage local Qataris to take up the challenge of implementing the vision. There is a gap between motivations in the form of words and the way organisations implement motivation through the use of deliberate strategies aimed at developing local talent into the knowledge workers of the future.

For Question 49, respondents were asked to state if they agreed with the argument that talent management could lead to their organisation achieving the Vision 2030. Only 67 responded out of a total of 284, meaning that 217 of them skipped the question. Overall, 44.78% of respondents (30) agreed with the argument that talent management was cardinal for their organisation to participate in the implementation of the QNV 2030. Furthermore, 26.87% of respondents (16) strongly agreed while 14.93% (10) could neither agree nor disagree with the statement – see Figure 7-49. Only 8.96% of the respondents (6) disagreed while 4.48% (3) strongly disagreed with the argument.

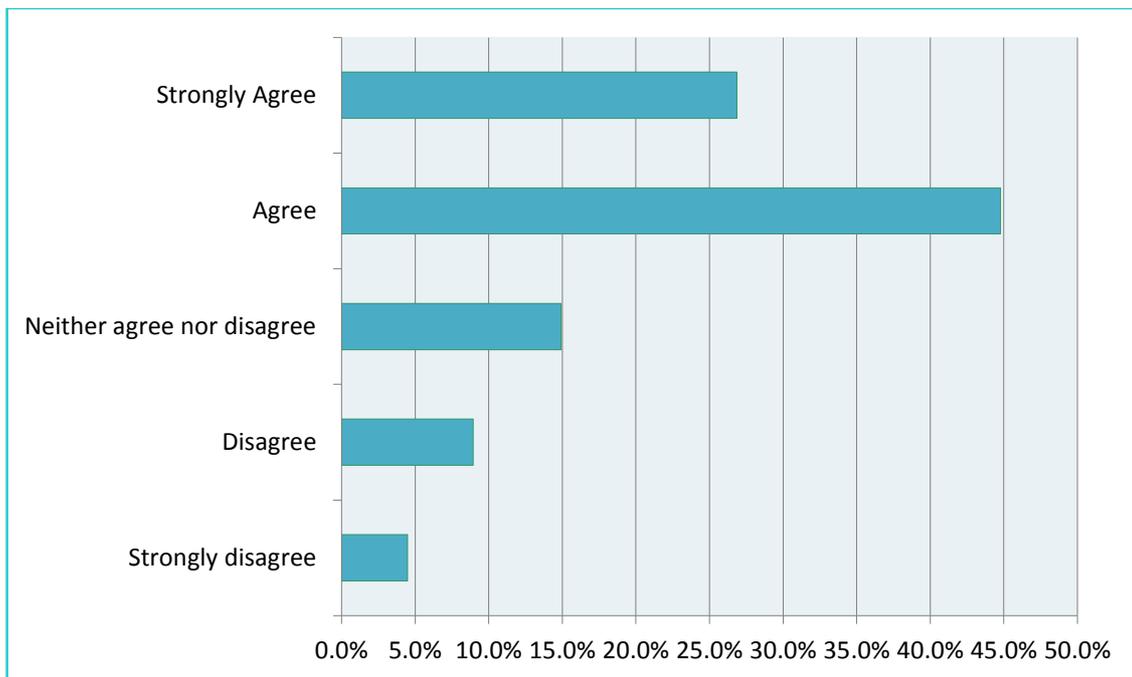


Figure 7-49: Talent Management Could Lead To Their Organisation Achieving The Vision 2030 (Question 49)

7.7 Primary Data for Hypothesis 1

The null hypothesis H_0 states that ‘the Qatari Vision 2030, as a policy, has no significant impact on the process of actualisation of the KBE in Qatar. The following sets of questions have been considered to be useful in terms of gathering primary data that would be employed to test the hypothesis in Chapter Ten.

7.7.1 Questions 9 and 21

In order to test hypothesis 1, it was crucial to examine the level of association between variables of selected questions that were designed for incorporation into the ‘Qatari 2030 Vision, as a policy’ and how it impacted the process of actualisation. Using the Chi-squared test of association, it was vital to implement the examination of responses to the following set of questions: Questions 9 and 21. Question 9, namely, ‘the Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy was tested against Question 21, which was, a ‘knowledge-based economy could be valuable for Qatar to gain competitive advantage’. Using SPSS, it was possible to undertake a cross-tabulation analysis of the response, shown here in Table 7-1. A total of 160 respondents answered the two questions.

Table 7-1: Cross-Tabulation Results For Questions 9 And 21

		Knowledge-based economy could be valuable for Qatar to gain competitive advantage				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	0	0	1	1	2
	Disagree	0	0	1	0	1
	Neither agree nor disagree	0	4	7	7	18
	Agree	1	5	38	26	70
	Strongly Agree	0	2	19	48	69
Total		1	11	66	82	160

- (i) The critical value at $p = 0.05$ is 21.0261
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-1 has been calculated to be 12, meaning that five columns and four rows were cross-tabulated using SPSS.
- (iii) The result of the Chi-square test in Table 7-2 is 24.465, which is greater than the critical value of 21.0261 with a significant level $p < 0.001$ for

Fisher's Exact 30.619.

- (iv) The conclusion from the test is a rejection of the null hypothesis that there is an association between the Qatari Vision 2030, which has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy, and the perception that the KBE could be valuable for Qatar to gain competitive advantage.

Table 7-2: Chi-Square Test Statistics Calculated Using The Cross-Tabulation Results For Questions 9 And 21

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	24.465 ^a	12	.018	.039		
Likelihood Ratio	23.488	12	.024	.004		
Fisher's Exact Test	30.619			.001		
Linear-by-Linear Association	11.171 ^b	1	.001	.001	.001	.000
N of Valid Cases	160					

a. 14 cells (70.0%) have an expected count of less than 5. The minimum expected count is .01.

b. The standardised statistic is 3.342.

Using Gamma, Spearman and Pearson correlations, it was also possible to test how correlated the responses were from Questions 9 and 21. Table 7-3 shows that the Pearson correlation value was 0.265 while the Spearman correlation value was 0.313 and the Gamma 0.470. The results show a medium positive correlation between the two questions. In two-tailed correlation coefficient tests such as these, the value of Exact Sig. plays an important role in testing the statistical significance. This means that, if the value is more than 0.05 (95% level of confidence), it implies that there is a significant correlation between two variables. On the contrary, when the significance value is less than 0.05, it implies a statistically significant correlation between the two variables (Black, 2010; Moore et al., 2011). Additionally, a low value of asymptomatic significance in a two-tailed correlation implies that any change in one variable can significantly relate to an increase (or otherwise) in the second variable (Black, 2010; Moore et al., 2011). For this research, the strong significant value could

be perceived as a key indicator that changes in one variable, such as, a change in the perception of a KBE could significantly impact the Vision 2030.

Table 7-3: Correlation Coefficient Results Used For The Symmetric Measure

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.470	.102	4.146	.000	.000
Ordinal Spearman Correlation	.313	.075	4.143	.000 ^c	.000
Interval by Pearson's R Interval	.265	.075	3.455	.001 ^c	.001
N of Valid Cases	160				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.7.2 Questions 9 and 15

Using Question 9 as the base, it was possible to test the association with the process of government incentives on the vision. Hence Question 9 was cross-tabulated with Question 15. Question 9 states that a, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’, while Question 15 states that, ‘the government should incentivise organisations to achieve Qatar National Vision 2030 (QNV 2030)’ – see the results in Table 7-4.

Using the information from Table 7-4, the following data was obtainable.

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-4 has been calculated to be 16, meaning that five columns and five rows were cross-tabulated using SPSS;
- (iii) The result of the Chi-square test in Table 7-5 is 57.950, which is greater than the critical value of 26.2962 with a significant level $p < 0.001$ for Fisher's Exact 61.462;

- (iv) The conclusion from the test is a rejection of the null hypothesis that there is a significant association between the Qatari Vision 2030, which has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy, and the perception that, ‘the government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)’.

Table 7-4: Cross-Tabulation Results For Questions 9 And 15

		The government should incentivise organisations to achieve Qatar National Vision 2030 (QNV 2030)					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	0	0	1	0	1	2
	Disagree	0	0	0	0	1	1
	Neither agree nor disagree	1	1	7	9	7	25
	Agree	1	3	5	36	42	87
	Strongly Agree	0	0	1	13	72	86
Total		2	4	14	58	123	201

Using SPSS, the responses to Questions 9 and 15 were also tested for Gamma, Spearman, and Pearson correlations, as shown in Table 7-6, with the results showing 0.643, 0.400 and 0.437 respectively. There is evidence that there was a medium positive correlation between the Vision 2030 and the provision of incentives by the Qatari government to the industry. The values of asymptomatic significance are extremely strong, which implies that any changes in either variable would significantly impact the other.

Table 7-5: The Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 15

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	57.950 ^a	16	.000	. ^b		
Likelihood Ratio	53.659	16	.000	.000		
Fisher's Exact Test	61.462			.000		
Linear-by-Linear Association	31.929 ^c	1	.000	.000	.000	.000
N of Valid Cases	201					

a. 17 cells (68.0%) have expected count less than 5. The minimum expected count is .01.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 5.651.

Table 7-6: Correlation Coefficient Results Used For Symmetric Measure Between Questions 9 And 15

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.643	.072	6.789	.000	.000
Ordinal by Ordinal Spearman Correlation	.437	.060	6.857	.000 ^c	.000
Interval by Interval Pearson's R	.400	.065	6.149	.000 ^c	.000
N of Valid Cases	201				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.7.3 Questions 9 and 32

Table 7-7 shows the cross-tabulation for Questions 9 and 32, where Question 9 stated that the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy, while Question 32

stated that, ‘leadership and authority are available to support the scope of the Qatar National Vision 2030’.

Using the data in Table 7-7, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-7 has been calculated to be 16, meaning that five columns and five rows were cross-tabulated using SPSS;
- (iii) The result of the Chi-square test in Table 7-8 is 42.026, which is greater than the critical value of 26.2962, Fisher's Exact Test value is 35.589 and it is highly significant $p < 0.001$.
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is association between the Qatari Vision 2030, which has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy, and the perception that ‘leadership and authority are available to support the scope of the Qatar National Vision 2030’.

Table 7-7: Cross-Tabulation Results For Questions 9 And 32

		Leadership and authority are available to support the scope of the Qatar National Vision 2030					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	1	0	0	1	0	2
	Disagree	0	0	1	0	0	1
	Neither agree nor disagree	3	3	3	7	1	17
	Agree	3	3	22	31	10	69
	Strongly Agree	0	3	11	31	24	69
Total		7	9	37	70	35	158

Table 7-8: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 32

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	41.026 ^a	16	.001	.	.	
Likelihood Ratio	34.365	16	.005	.	.	
Fisher's Exact Test	35.589			.000		
Linear-by-Linear Association	22.032 ^c	1	.000	.000	.000	.000
N of Valid Cases	158					

a. 18 cells (72.0%) have an expected count of less than 5. The minimum expected count is .04.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 4.694.

Additionally, Gamma, Pearson and Spearman's correlation coefficients were calculated using SPSS, with the results showing that Questions 9 and 32 were positively correlated. Gamma value was 0.464, Pearson's correlation coefficient was 0.375 while the Spearman's value was 0.347, as shown in Table 7-9. The result shows that there is a medium positive correlation between Questions 9 and 32 and significant at $p < 0.05$.

Table 7-9: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 32

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.464	.090	4.625	.000	.000
Ordinal Spearman Correlation	.347	.072	4.618	.000 ^d	.000
Interval by Pearson's R	.375	.079	5.046	.000 ^d	.000
Interval					
N of Valid Cases	158				

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Cannot be computed because there is insufficient memory.
- d. Based on normal approximation.

7.7.4 Questions 9 and 33

It was also seen as essential to test the association between Question 9, namely that the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ and Question 33, which stated that, ‘new technology plays a supporting role in the Vision 2030’. Table 7-10 shows the cross-tabulation between Questions 9 and 33, giving five columns and five rows.

Table 7-10: Cross-Tabulation Results For Questions 9 And 33

		New technology plays a supporting role in the Vision 2030					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	0	0	0	1	1	2
	Disagree	0	0	0	1	0	1
	Neither agree nor disagree	0	2	4	7	4	17
	Agree	1	1	5	46	17	70
	Strongly Agree	0	0	3	27	39	69
Total		1	3	12	82	61	159

Using the data in Table 7-10 the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-10 has been calculated to be 16, meaning that five columns and five rows were cross-tabulated using SPSS;
- (iii) The result of the Chi-square test in Table 7-11 is 35.003, which is greater than the critical value of 26.2962 and Fisher's Exact Test value 40.588 and $p < 0.001$, which is highly significant;
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is an association between the Qatari Vision 2030 having been set up to drive, among other things, the development of Qataris with a view to sustaining the economy and the perception that “new technology plays a supporting role in the Vision 2030”.

Table 7-11: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 33

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	35.003 ^a	16	.004	.057		
Likelihood Ratio	30.435	16	.016	.001		
Fisher's Exact Test	40.588			.000		
Linear-by-Linear Association	13.209 ^b	1	.000	.000	.000	.000
N of Valid Cases	159					

a. 17 cells (68.0%) have an expected count of less than 5. The minimum expected count is .01.

b. The standardised statistic is 3.634.

Using scores from Questions 9 and 33, it was possible to undertake correlation coefficient testing using Gamma, Spearman's and Pearson's techniques, whose results are shown in Table 7-12. It shows that there was a positive correlation between the two responses because the results were 0.500, 0.289 and 0.339 for Gamma, Pearson's and Spearman's correlation respectively, which was an indication that there was a medium positive correlation between the responses to the two questions that are highly significant $p < 0.001$.

Table 7-12: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 33

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance	
Ordinal by Ordinal	Gamma	.500	.102	4.384	.000	.000
Ordinal by Ordinal	Spearman Correlation	.339	.076	4.515	.000 ^c	.000
Interval by Interval	Pearson's R	.289	.078	3.785	.000 ^c	.000
N of Valid Cases		159				

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Based on normal approximation.

7.7.5 Questions 36 and 42

Using SPSS, it was possible to undertake cross-tabulation for Questions 36 and 42, namely that ‘human resource development could be valuable for Qatar to gain competitive advantage’ and, ‘talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030’. The results are shown in Table 7-13 with four columns and three rows producing valid results.

Using the data in Table 7-13, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 12.5916;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-13 have been calculated to be 6, meaning that four columns and three rows were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-14 is: 27.527 which is more than the critical value of 12.5916, Fisher's Exact Test value is 25.530 and it is highly significant at $p < 0.001$.
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is strong association between, ‘human resource development could be valuable for Qatar to gain competitive advantage’ and ‘talent management

is important to having a knowledge-based economy that supports the Qatar National Vision 2030’.

Table 7-13: Cross-Tabulation Results For Questions 36 And 42

		Talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	0	1	0	0	1
	Agree	0	4	16	3	23
	Strongly agree	1	1	14	27	43
	Total	1	6	30	30	67

Table 7-14: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 42

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	27.527 ^a	6	.000	.015		
Likelihood Ratio	24.362	6	.000	.000		
Fisher's Exact Test	25.530			.000		
Linear-by-Linear Association	14.446 ^b	1	.000	.000	.000	.000
N of Valid Cases	67					

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .01.

b. The standardised statistic is 3.801.

The correlation between Questions 36 and 42 produced a Gamma value of 0.771, Pearson’s value of 0.468 and a Spearman’s value of 0.500; see Table 7-15. The result

shows that there is a strong positive and highly significant correlation, while $p < 0.001$, between the perception that human resource development could be valuable for Qatar to gain competitive advantage and that talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030.

Table 7-15: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 44

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal Gamma	.771	.110	4.693	.000	.000
by Spearman	.500	.099	4.656	.000 ^c	.000
Ordinal Correlation					
Interval Pearson's	.468	.111	4.268	.000 ^c	.000
by R					
Interval					
N of Valid Cases	67				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.7.6 Questions 9 and 18

It was possible to cross-tabulate Question 9, which stated that, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ with Question 18, which stated that, ‘local Qataris can fully support initiatives aimed at transforming Qatar’s economy from one heavily reliant on oil and gas to an economy based on knowledge’. Table 7-16 shows that five columns and five rows were tabulated from the two questions.

Table 7-16: Cross-Tabulation Results For Questions 9 And 18

		Local Qataris can fully support initiatives aimed at transforming Qatar’s economy from one heavily reliant on oil and gas to an economy based on knowledge.					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly	1	0	0	1	0	2
	Disagree	0	0	0	0	1	1
	Neither agree nor disagree	0	0	8	3	7	18
	Agree	0	2	12	35	21	70
	Strongly Agree	0	1	5	22	42	70
Total		1	3	25	61	71	161

Using the data in Table 7-16, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-16 have been calculated to be 16, meaning that five columns and five rows were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-17 is 108.726, which is more than the critical value of 26.2962; Fisher's Exact Test value is 44.486 and $p < 0.001$ which is highly significant;
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is association between the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ and the perception that, ‘local Qataris can fully support initiatives aimed at transforming Qatar’s economy from one heavily reliant on oil and gas to an economy based on knowledge’.

Table 7-17: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 18

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	108.726 ^a	16	.000	.007		
Likelihood Ratio	37.770	16	.002	.000		
Fisher's Exact Test	44.486			.000		
Linear-by-Linear Association	16.280 ^b	1	.000	.000	.000	.000
N of Valid Cases	161					

a. 17 cells (68.0%) have expected count less than 5. The minimum expected count is .01.

b. The standardised statistic is 4.035.

The same responses from Questions 9 and 18 were correlated using Gamma, Pearson's and Spearman's coefficients in SPSS, as shown in Table 7-18. The results show that there was a score of 0.416, 0.319 and 0.295 for Gamma, Pearson's and Spearman's correlation coefficients, respectively. The scores show a positive correlation between Questions 9 and 18; however, it reveals a highly significant $p < 0.001$ – a medium correlation.

Table 7-18: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 18

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.416	.103	3.744	.000	.000
Ordinal Spearman Correlation	.295	.078	3.892	.000 ^c	.000
Interval by Pearson's R	.319	.099	4.244	.000 ^c	.000
Interval					
N of Valid Cases	161				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.7.7 Questions 9 and 27

The cross-tabulation of Questions 9 and 27 compared the responses to the perception that the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' with the opinion that, 'the reliance on knowledge could be valuable for Qatar to gain competitive advantage', as shown in Table 7-19.

Using the data in Table 7-19, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-19 has been calculated to be 16; this means that there were five columns and five rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-20 is 26.017, which is less than the critical value of 26.2962. Fisher's Exact Test value is 39.041 and exact significant $p < 0.05$;
- (iv) The conclusion from the test is a rejection of the null hypothesis. However, there is an association between the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to

sustaining the economy’ and the opinion that, ‘the reliance on knowledge could be valuable for Qatar to gain competitive advantage’.

Table 7-19: Cross-Tabulation Results For Questions 9 And 27

		The reliance on knowledge could be valuable for Qatar to gain competitive advantage					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	0	0	0	1	1	2
	Disagree	0	0	0	0	1	1
	Neither agree nor disagree	0	0	4	5	10	19
	Agree	1	0	5	41	22	69
	Strongly Agree	0	1	4	18	44	67
Total		1	1	13	65	78	158

Table 7-20: Chi-Square Test Statistic Calculated Using Cross-Tabulation Results For Questions 9 And 27

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	26.017 ^a	16	.054	.058		
Likelihood Ratio	26.380	16	.049	.004		
Fisher's Exact Test	39.041			.001		
Linear-by-Linear Association	2.755 ^b	1	.097	.106	.059	.014
N of Valid Cases	158					

a. 17 cells (68.0%) have expected count less than 5. The minimum expected count is .01.

b. The standardised statistic is 1.660.

The Gamma, Pearson's and Spearman's correlation between Questions 9 and 27 resulted in values of 0.303, 0.132 and 0.206 respectively (see Table 7-21). There is a small positive correlation between the Vision and the reliance on knowledge and significant at $p < 0.05$ for the exact significance.

Table 7-21: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 27

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.303	.117	2.521	.012	.012
Ordinal by Ordinal Spearman Correlation	.206	.082	2.629	.009 ^c	.010
Interval by Interval Pearson's R	.132	.079	1.669	.097 ^c	.106
N of Valid Cases	158				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.7.8 Questions 9 and 30

The cross-tabulation of Questions 9 and 30 was designed to test the association between the perception that the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' and the argument that, 'Qatar cities are designed to support a sustainable economy', with the results shown in Table 7-22.

Using the data in Table 7-22, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-22 has been calculated to be 16, meaning that five columns and five rows were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-23 is: 32.034 which is more than the critical value of 26.2962, Fisher's Exact Test value is 28.080 and

significant at $p < 0.05$.

- (iv) The conclusion from the test is that a rejection of the null hypothesis that there is an association between the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ and the argument that, ‘Qatar cities are designed to support a sustainable economy’.

Table 7-22: Cross-Tabulation Results For Questions 9 And 30

		Qatar cities are designed to support a sustainable economy					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	0	1	0	1	0	2
	Disagree	0	0	0	1	0	1
	Neither agree nor disagree	7	1	5	1	2	16
	Agree	6	19	20	20	5	70
	Strongly Agree	5	9	20	24	11	69
Total		18	30	45	47	18	158

Table 7-23: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 16

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	32.034 ^a	16	.010	. ^b		
Likelihood Ratio	28.523	16	.027	. ^b		
Fisher's Exact Test	28.080			.007		
Linear-by-Linear Association	6.918 ^c	1	.009	.008	.005	.001
N of Valid Cases	158					

a. 15 cells (60.0%) have expected count less than 5. The minimum expected count is .11.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 2.630.

The Gamma, Pearson's and Spearman's correlations for Questions 9 and 30 indicate values of 0.294, 0.210 and 0.231 respectively. This shows that, even though responses are small, they are positively correlated between the Vision and the set-up of the cities, and significant, while $p < 0.05$ – see Table 7-24.

Table 7-24: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 44

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.294	.099	2.878	.004	.003
Ordinal Spearman Correlation	.231	.080	2.959	.004 ^d	.005
Interval by Pearson's R	.210	.082	2.681	.008 ^d	.008
Interval					
N of Valid Cases	158				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.7.9 Questions 36 and 47

The cross-tabulation for Question 36 with Question 47 meant that it was possible to examine the Chi-squared test statistic on responses that were linked to the argument that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ and the view that, ‘a framework or plan would be required to run the business for a Knowledge-based Economy (KBE)’. The results of the cross-tabulation have been summarised in Table 7-25.

Using the data in Table 7-25, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-25 has been calculated to be 16; this means that five columns and five rows were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-26 is 17.468, which is more than the critical value of 15.5073. Fisher's Exact Test value is 11.969 while $p > 0.05$ is not significant;
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is a weak association between, ‘human resource development could be valuable for Qatar to gain competitive advantage’ and the argument that, ‘a

framework or plan would be required to run the business for a Knowledge-based Economy (KBE)'.

Table 7-25: Cross-Tabulation Results For Questions 9 And 47

		A framework or plan is required to run the business for Knowledge-based Economy (KBE)					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	1	0	0	0	0	1
	Agree	1	2	6	11	1	21
	Strongly agree	3	4	12	13	11	43
Total		5	6	18	24	12	65

Table 7-26: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 16

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	17.468 ^a	8	.026	.032		
Likelihood Ratio	11.294	8	.186	.119		
Fisher's Exact Test	11.969			.107		
Linear-by-Linear Association	2.861 ^b	1	.091	.103	.060	.019
N of Valid Cases	65					

a. 10 cells (66.7%) have expected count less than 5. The minimum expected count is .08.

b. The standardised statistic is 1.691.

The correlation coefficient values for Gamma, Pearson's and Spearman's shown in Table 7-27 indicate 0.204 for Gamma, 0.211 value for Pearson's and 0.132 for Spearman's correlation. This translates into a weak, not significant ($p > 0.05$), positive

correlation between responses for Questions 36 and 47.

Table 7-27: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 44

		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal	Gamma	.204	.181	1.088	.277	.289
Interval by Interval	Spearman Correlation	.132	.119	1.054	.296 ^c	.293
	Pearson's R	.211	.149	1.717	.091 ^c	.103
N of Valid Cases		65				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.8 Primary Data for Hypothesis 2

The Null Hypothesis 2 is, ‘The current organisational set-up in Qatar is inadequate for the economy to develop to a KBE by 2030’. The main argument from hypothesis 2 has been that for Qatari industries to operationalise a knowledge-based economy by 2030, entities within the economy would have to develop their human resource base. Therefore, there were many questions identified whose focus were to provide the sub-sections of the hypothesis-testing mechanism.

7.8.1 Questions 36 and 45

The cross-tabulation of Question 36 namely that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ and Question 45, ‘the organisation has a talent identification programme’ produced a five by three matrix – see Table 7-28.

Table 7-28: Cross-Tabulation Results For Questions 36 And 45

		Your organisation has a talent identification programme					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	0	0	0	1	0	1
	Agree	2	7	8	4	1	22
	Strongly agree	4	6	4	23	6	43
Total		6	13	12	28	7	66

Using the data in Table 7-28, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-28 has been calculated to be 16; this means that there were five columns and five rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-29 is 15.090, which is less than the critical value of 15.5073. Fisher's Exact Test value is 16.537 and $p < 0.05$.
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is association between the argument that, 'human resource development could be valuable for Qatar to gain competitive advantage, and that, 'the organisation has a talent identification programme'.

Table 7-29: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 45

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	15.090 ^a	8	.057	.056		
Likelihood Ratio	15.684	8	.047	.023		
Fisher's Exact Test	16.537			.013		
Linear-by-Linear Association	2.426 ^b	1	.119	.141	.076	.023
N of Valid Cases	66					

a. 11 cells (73.3%) have expected count less than 5. The minimum expected count is .09.

b. The standardised statistic is 1.558.

The results from Questions 36 and 45 were also correlated using Gamma, Pearson's and Spearman's correlation coefficients in SPSS with the results in Table 7-30 indicating 0.423 for Gamma, 0.193 for Pearson's value and 0.299 for Spearman's value. There is a positive significant correlation.

Table 7-30: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 45

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.423	.155	2.567	.010	.023
Ordinal by Ordinal Spearman Correlation	.299	.114	2.503	.015 ^c	.015
Interval by Interval Pearson's R	.193	.123	1.575	.120 ^c	.141
N of Valid Cases	66				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.8.2 Questions 9 and 24

Question 9, namely that the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ and Question 24, which was, ‘your organisation ignores individual knowledge and experience in favour of ICT and systems’ were cross tabulated, as shown in Table 7-31.

Table 7-31: Cross-Tabulation Results For Questions 9 And 24

		Your organisation ignores individual knowledge and experience in favour of ICT and systems.					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	1	0	0	0	1	2
	Disagree	0	0	1	0	0	1
	Neither agree nor disagree	1	3	13	1	1	19
	Agree	3	23	26	11	7	70
	Strongly Agree	13	20	27	8	2	70
Total		18	46	67	20	11	162

Using the data in Table 7-31, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962’
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-31 has been calculated to be 16; this means that there were five columns and five rows that were cross-tabulated using SPSS;

- (iii) The result of the Chi-square test in Table 7-32 is: 27.844, which is greater than the critical value of 26.2962. Fisher's Exact Test value is 26.078 and there is exact significance at $p < 0.05$.
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is a small negative association between, 'the Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' and the perception that organisations ignore individual knowledge and experience in favour of ICT and systems.

Table 7-32: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 24

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	27.844 ^a	16	.033	. ^b		
Likelihood Ratio	25.900	16	.055	. ^b		
Fisher's Exact Test	26.078			.020		
Linear-by-Linear Association	4.294 ^c	1	.038	.041	.022	.005
N of Valid Cases	162					

a. 15 cells (60.0%) have expected count less than 5. The minimum expected count is .07.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is -2.072.

Pearson and Spearman correlations were used to test the correlation responses from Questions 9 and 24. Table 7-33 shows that the Gamma value was -0.233, Pearson correlation value was -0.163 while the Spearman correlation value was -0.179. The results show a small negative significant correlation between the two questions.

Table 7-33: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 24

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance	
Ordinal by Ordinal	Gamma	-.233	.098	-2.358	.018	.025
Ordinal by Ordinal	Spearman Correlation	-.176	.075	-2.265	.025 ^d	. ^c
Interval by Interval	Pearson's R	-.163	.092	-2.094	.038 ^d	.041
N of Valid Cases		162				

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.
- c. Cannot be computed because there is insufficient memory.
- d. Based on normal approximation.

7.8.3 Questions 9 and 25

Using the cross-tabulation in SPSS, it was possible to examine the relationship between Question 9, which stated that the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’, and Question 25, which stated that, ‘your organisation provides a mechanism for employees to learn from each other regardless of the management level’ – see the cross-tabulation data in Table 7-34.

Using the data in Table 7-34, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-34 has been calculated to be 16; this means that there were five columns and five rows that were cross-tabulated using SPSS;
- (iii) The result of the Chi-square test in Table 7-35 is: 33.476, which is greater than the critical value of 26.2962. Fisher's Exact Test value is 21.468 and $p > 0.05$.
- (iv) The conclusion from the test is a failure to reject the null hypothesis that there is association between, ‘the Qatari Vision 2030 has been set up to

drive, among other things, the development of Qataris with a view to sustaining the economy' and the perception that respondent organisations provide a mechanism for employees to learn from each other regardless of the management level.

Table 7-34: Cross-Tabulation Results For Questions 9 And 25

		Your organisation provides a mechanism for employees to learn from each other regardless of the management level					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	2	0	0	0	0	2
	Disagree	0	1	0	0	0	1
	Neither agree nor disagree	1	1	8	6	3	19
	Agree	6	14	26	20	3	69
	Strongly Agree	5	12	21	18	11	67
Total		14	28	55	44	17	158

Table 7-35: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 25

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	33.476 ^a	16	.006	.	.	
Likelihood Ratio	22.524	16	.127	.	.	
Fisher's Exact Test	21.468			.094		
Linear-by-Linear Association	2.526 ^c	1	.112	.121	.062	.010
N of Valid Cases	158					

a. 13 cells (52.0%) have expected count less than 5. The minimum expected count is .09.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 1.589.

In addition to the Chi-square test, the Pearson and Spearman correlation result was performed using SPSS on Questions 9 and 25, with the results shown in Table 7-36. The result shows that the Gamma value was 0.94, Pearson correlation value was 0.127 and the Spearman correlation value was 0.075. The results show a very weak positive correlation between the two questions, while the correlation was not significant at $p > 0.05$.

Table 7-36: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 25

		Symmetric Measures				
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal	Gamma	.094	.106	.884	.377	. ^c
Ordinal by Interval	Spearman Correlation	.075	.083	.936	.351 ^d	. ^c
Interval by Interval	Pearson's R	.127	.093	1.597	.112 ^d	.121
N of Valid Cases		158				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.8.4 Questions 9 and 26

Using SPSS, Questions 9 and 26 were cross-tabulated. Question 9 stated that, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ while Question 26 stated, ‘the industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves’. The idea was to assess the link between the promotion of creativity as a prerequisite to drive economic sustainability, eventually leading to the actualisation of the KBE. The data shown in Table 7-37 highlights the cross-tabulation from where the degree of freedom in the chi-square test has been calculated.

Based on Tables 7-37 and 7-38, the following information has been extracted:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-38 has been calculated to be 16; this means that there were five columns and five rows that were cross-tabulated using SPSS;
- (iii) The result of the Chi-square test in Table 7-38 is: 26.970, which is greater

than the critical value of 26.2962. Fisher's Exact Test value is 28.546 and $p > 0.05$.

- (iv) The conclusion from the test is the failure to reject the null hypothesis that there is association between, ‘the Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ and the perception that, ‘the industry respondents operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves’.

Table 7-37: Cross-Tabulation Results For Questions 9 And 26

		The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	1	1	0	0	0	2
	Disagree	0	0	1	0	0	1
	Neither agree nor disagree	1	1	7	6	4	19
	Agree	6	14	22	26	1	69
	Strongly Agree	6	5	23	20	13	67
Total		14	21	53	52	18	158

Table 7-38: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 26

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	26.970 ^a	16	.042	. ^b		
Likelihood Ratio	28.788	16	.025	. ^b		
Fisher's Exact Test	28.546			.006		
Linear-by-Linear Association	2.459 ^c	1	.117	.120	.065	.011
N of Valid Cases	158					

a. 13 cells (52.0%) have expected count less than 5. The minimum expected count is .09.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 1.568.

It was also possible to test the correlation between Questions 9 and 26 using the SPSS cross-tabulation function with the result shown in Table 7-39 where the Gamma value is 0.139, Pearson's value is 0.125 and the Spearman correlation is 0.109. The correlation shows a small positive, not significant correlation.

Table 7-39: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 26

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.139	.105	1.315	.188	.172
Ordinal by Ordinal Spearman Correlation	.109	.082	1.372	.172 ^d	. ^c
Interval by Interval Pearson's R	.125	.087	1.575	.117 ^d	.120
N of Valid Cases	158				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.8.5 Questions 9 and 34

Using SPSS analysis, it was possible to also test the level of association between Questions 9 and 34, where Question 9 stated that the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ while Question 34 stated that, ‘your organisation creates knowledge that is worth capturing and sharing within the economy’. Table 7-40 presents the scores for the cross-tabulation between Questions 9 and 34.

Table 7-40: Cross-Tabulation Results For Questions 9 And 34

		Your organisation creates knowledge that is worth capturing and sharing within the economy					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	1	1	0	0	0	2
	Disagree	0	1	0	0	0	1
	Neither agree nor disagree	3	1	3	9	1	17
	Agree	5	2	22	35	5	69
	Strongly Agree	2	5	14	31	17	69
Total		11	10	39	75	23	158

Using the data in Table 7-40, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-41 has been calculated to be 16; this means that there were five columns and five rows that were cross-tabulated using SPSS;
- (iii) The result of the Chi-square test in Table 7-41 is 44.608, which is greater than the critical value of 26.2962. Fisher's Exact Test is 31.962 and is significant at $p < 0.05$.
- (iv) The conclusion from the test is the rejection of the null hypothesis that

there is a medium association between the Qatari Vision 2030 and the perception that, ‘your organisation creates knowledge that is worth capturing and sharing within the economy’.

Table 7-41: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 34

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	44.608 ^a	16	.000	. ^b		
Likelihood Ratio	30.218	16	.017	. ^b		
Fisher's Exact Test	31.962			.002		
Linear-by-Linear Association	14.015 ^c	1	.000	.000	.000	.000
N of Valid Cases	158					

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .06.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 3.744.

Using the SPSS function of correlation coefficients, it was possible to test the Gamma, Pearson’s and Spearman’s correlations of Questions 9 and 34. The results in Table 7-42 show that there is a medium but positive correlation with the scores of 0.325, 0.299 and 0.240 Pearson’s and Spearman’s correlation coefficient scores respectively and significant at $p < 0.05$.

Table 7-42: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 34

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.325	.104	2.957	.003	. ^c
Ordinal Spearman Correlation	.240	.079	3.091	.002 ^d	. ^c
Interval by Pearson's R	.299	.084	3.910	.000 ^d	.000
Interval					
N of Valid Cases	158				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.8.6 Questions 36 and 44

Question 36, which was, ‘human resource development could be valuable for Qatar to gain competitive advantage’ was cross-tabulated with Question 44, namely that, ‘your organisation picks people to develop as future talent for the company’. The rationale for the cross-tabulation was to establish the link between the importance of human resource development and the operationalisation thereof. Table 7-43 shows that there were five columns and three rows that had valid responses, meaning that the degree of freedom for the cross-tabulation was 8.

Using the data in Table 7-43, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-43 has been calculated to be 8; this means that there were five columns and three rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-44 is 9.168, which is less than the critical value of 15.5073. Fisher's Exact Test value is 10.097 and $p > 0.05$.
- (iv) The conclusion from the test is a failure to reject the null hypothesis that

there is a very weak association between ‘human resource development could be valuable for Qatar to gain competitive advantage’ and that ‘organisations select people to develop as future talent for the company’.

Table 7-43: Cross-Tabulation Results For Questions 36 And 44

		Your organisation picks people to develop as future talent for the company					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	0	0	0	1	0	1
	Agree	2	2	12	5	1	22
	Strongly agree	4	7	10	14	7	42
	Total	6	9	22	20	8	65

Table 7-44: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 44

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	9.168 ^a	8	.328	.359		
Likelihood Ratio	9.341	8	.314	.238		
Fisher's Exact Test	10.097			.229		
Linear-by-Linear Association	.115 ^b	1	.735	.777	.400	.070
N of Valid Cases	65					

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .09.

b. The standardised statistic is .339.

It was also important to assess the correlation between Questions 36 and 44 with the results for Gamma, Pearson’s and Spearman’s correlation in Table 7-45 showing

0.155, 0.042 and 0.105 respectively. The results clearly indicate that, even though human resource development could be seen as vital, there was a very weak correlation with its operationalisation at the organisation level; $p > 0.05$ meaning that the correlation is not significant.

Table 7-45: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 44

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.155	.176	.874	.382	.410
Ordinal Spearman Correlation	.105	.117	.841	.404 ^c	.400
Interval by Pearson's R	.042	.111	.337	.738 ^c	.777
Interval					
N of Valid Cases	65				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.8.7 Questions 9 and 16

Under Question 9, respondents were asked to state if the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’. Therefore, it was possible to cross-tabulate the question with Question 16, which stated that, ‘the organisation should incentivise the employees of various organisations to work towards the achievement of Qatar National Vision 2030 (QNV 2030)’. The results of the cross-tabulation in Table 7-46 show five columns and five rows, hence the degree of freedom of 16.

Using the data in Table 7-46, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-46 has been calculated to be 16; this means that there were five columns and five rows that were found to be valid from the cross-tabulation using SPSS;

- (iii) The result of the Chi-square test in Table 7-47 is: 55.029 which is more than the critical value of 26.2962, Fisher's Exact Test value is 60.324 and highly significant at $p < 0.001$;
- (iv) The conclusion from the test is that the rejection of the null hypothesis that there is association between the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' and, 'the organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)'

Table 7-46: Cross-Tabulation Results For Questions 9 And 16

		The organisation should incentivise the employees of various organisations to work towards the achievement of Qatar National Vision 2030 (QNV 2030)					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	0	0	1	0	1	2
	Disagree	0	0	0	0	1	1
	Neither agree nor disagree	1	1	5	10	8	25
	Agree	1	1	4	42	40	88
	Strongly Agree	0	0	1	14	71	86
Total		2	2	11	66	121	202

Table 7-47: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 16

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	55.029 ^a	16	.000	. ^b		
Likelihood Ratio	49.526	16	.000	.000		
Fisher's Exact Test	60.324			.000		
Linear-by-Linear Association	29.792 ^c	1	.000	.000	.000	.000
N of Valid Cases	202					

a. 19 cells (76.0%) have expected count less than 5. The minimum expected count is .01.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 5.458.

The results from the cross-tabulation of Questions 9 and 16 were also used to calculate Gamma, Pearson's and Spearman's correlation with results of 0.622, 0.385 and 0.417 respectively (see Table 7-48). This implies that the responses to Questions 9 and 16 were positively correlated, and highly significant at $p < 0.001$.

Table 7-48: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 16

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.622	.077	6.386	.000	.000
Ordinal by Ordinal Spearman Correlation	.417	.062	6.489	.000 ^c	.000
Interval by Interval Pearson's R	.385	.067	5.899	.000 ^c	.000
N of Valid Cases	202				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.8.8 Questions 9 and 17

Using SPSS, Questions 9 and 17 were cross-tabulated in order to assess if the perception that the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ correlated with the opinion that, ‘Qataris are motivated to develop themselves in organisation to become leaders’.

Table 7-49: Cross-Tabulation Results For Questions 9 And 17

		You are motivated to develop yourself in the organisation to become a leader					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	0	1	0	0	1	2
	Disagree	0	0	0	0	1	1
	Neither agree nor disagree	2	0	4	7	12	25
	Agree	3	3	5	30	47	88
	Strongly Agree	1	1	4	11	67	84
Total		6	5	13	48	128	200

Using the data in Table 7-49, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-49 has been calculated to be 16; this means that there were five columns and five rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-50 is 41.703, which is more than the critical value of 26.2962.
- (iv) The conclusion from the test is the rejection of the null hypothesis that there is association between, ‘Qatari Vision 2030 has been set up to drive,

among other things, the development of Qataris with a view to sustaining the economy’ and the opinion that, ‘Qataris are motivated to develop themselves in organisation to become leaders’.

Table 7-50: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 17

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	41.703 ^a	16	.000	.047		
Likelihood Ratio	28.463	16	.028	.007		
Fisher's Exact Test	35.079			.002		
Linear-by-Linear Association	11.539 ^b	1	.001	.001	.001	.000
N of Valid Cases	200					

a. 17 cells (68.0%) have expected count less than 5. The minimum expected count is .03.

b. The standardised statistic is 3.397.

Using the Gamma, Pearson’s and Spearman’s correlation coefficients of the SPSS package, it was possible to correlate Questions 9 and 17 with the results shown in Table 7-51 where the Gamma value was 0.418, Pearson’s result was 0.242 and the Spearman’s value was 0.271. The correlation test shows that there was a positive correlation between Questions 9 and 17; however, the level of correlation was small and significant.

Table 7-51: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 17

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.418	.096	3.930	.000	. ^c
Ordinal Spearman Correlation	.271	.067	3.964	.000 ^d	. ^c
Interval by Pearson's R	.241	.077	3.491	.001 ^d	.001
Interval					
N of Valid Cases	200				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.8.9 Questions 9 and 19

A similar approach was used to cross-tabulate Question 9, which states that the, ‘Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy’ and Question 19, which stated that, ‘professional practice within organisation was keen to implement knowledge management through knowledge creation and sharing’. The rationale for cross-tabulating knowledge management through creation and sharing was because these attributes were seen as a critical element of a KBE in the literature review.

Table 7-52: Cross-Tabulation Results For Questions 9 And 19

		Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	1	1	0	0	0	2
	Disagree	0	0	1	0	0	1
	Neither agree nor disagree	2	1	5	5	5	18
	Agree	3	7	23	28	9	70
	Strongly Agree	2	8	10	32	18	70
Total		8	17	39	65	32	161

Using the data in Table 7-52, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-52 has been calculated to be 16; this means that there were five columns and five rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-53 is: 28.291 which is more than the critical value of 26.2962, Fisher's Exact Test value is 25.328 and it is significant $p < 0.05$;
- (iv) The conclusion from the test is the rejection of the null hypothesis that there is weak association between the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' and the perception that, 'professional practice within organisations was keen to implement knowledge management through knowledge creation and sharing'.

Table 7-53: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 19

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	28.291 ^a	16	.029	. ^b		
Likelihood Ratio	23.204	16	.108	. ^b		
Fisher's Exact Test	25.328			.028		
Linear-by-Linear Association	7.313 ^c	1	.007	.007	.004	.001
N of Valid Cases	161					

a. 16 cells (64.0%) have expected count less than 5. The minimum expected count is .05.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 2.704.

Gamma, Pearson's and Spearman's correlation coefficients were calculated on Questions 9 and 19, and produced values of 0.237, 0.214 and 0.181 respectively (Table 7-54). This meant that the conclusion on the correlation between the two questions was positive but very weak; hence it was tallied with the chi-test result and considered to be significant at $p < 0.05$.

Table 7-54: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 19

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.237	.106	2.206	.027	.022
Ordinal by Ordinal Spearman Correlation	.181	.082	2.316	.022 ^d	. ^c
Interval by Interval Pearson's R	.214	.089	2.760	.006 ^d	.007
N of Valid Cases	161				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.8.10 Questions 9 and 20

It was equally vital to cross-tabulate Questions 9 and 20 in order to derive the Chi-square test for the perception that, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' to determine if this was aligned with the opinion that respondents', 'organisations were keen to implement organisational learning at all management levels of the company', as shown Table 7-55.

Using the data in Table 7-55, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 21.0261;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-55 has been calculated to be 16; this means that there were five columns and four rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-56 is: 28.065, which is more than the critical value of 21.0261. Fisher's Exact Test value is 23.158, and significant at $p < 0.05$.
- (iv) The conclusion from the test is the rejection of the null hypothesis that there is weak association between the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' and the opinion that respondents', 'organisations were keen to implement organisational learning at all management levels of the company'.

Table 7-55: Cross-Tabulation Results For Questions 9 And 20

		Your organisation is keen to implement organisational learning at all management levels of the company					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	1	1	0	0	0	2
	Neither agree nor disagree	1	2	9	4	2	18
	Agree	3	11	23	25	7	69
	Strongly Agree	3	7	12	28	20	70
	Total	8	21	44	57	29	159

Gamma, Pearson's and Spearman's correlation coefficients were calculated on Questions 9 and 20 with the results in Table 7-57 indicating that the responses to the two questions were positively correlated. The Gamma value was 0.359, Pearson's value was 0.284 and the Spearman's value was 0.278; this means that the positive correlation was weak. However, it was significant $p < 0.05$.

Table 7-56: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 20

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	28.065 ^a	12	.005	. ^b		
Likelihood Ratio	23.484	12	.024	. ^b		
Fisher's Exact Test	23.158			.009		
Linear-by-Linear Association	12.723 ^c	1	.000	.000	.000	.000
N of Valid Cases	159					

a. 11 cells (55.0%) have expected count less than 5. The minimum expected count is .10.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 3.567.

Table 7-57: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 20

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.359	.096	3.613	.000	.001
Ordinal by Ordinal Spearman Correlation	.278	.076	3.622	.000 ^d	. ^c
Interval by Interval Pearson's R	.284	.081	3.708	.000 ^d	.000
N of Valid Cases	159				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.8.11 Questions 9 and 31

For Questions 9 and 31, the idea was to cross-tabulate the response to the question that, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' against the question that, 'the culture in respondent organisations allowed for creating knowledge' as

shown in Table 7-58. The rationale for the cross-tabulation of Questions 9 and 31 was to assess the perception of the link between knowledge creation and the implementation of the Qatari Vision 2030.

Table 7-58: Cross-Tabulation Results For Questions 9 And 31

		The culture in your organisation allows for creating knowledge					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Strongly Disagree	2	0	0	0	0	2
	Disagree	0	0	1	0	0	1
	Neither agree nor disagree	4	1	3	7	2	17
	Agree	5	8	25	27	4	69
	Strongly Agree	4	5	15	32	13	69
Total		15	14	44	66	19	158

Using the data in Table 7-58, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 26.2962;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-58 has been calculated to be 16; this means that there were five columns and five rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-59 is 36.161, which is more than the critical value of 26.2962. Fisher's Exact Test value 25.995 and significant at $p < 0.05$.
- (iv) The conclusion from the test is the rejection the null hypothesis that there is an association between the, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy' and the question that, 'the culture in respondent organisations allowed for creating knowledge'.

Table 7-59: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 9 And 31

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	36.161 ^a	16	.003	.		
Likelihood Ratio	25.765	16	.057	.026		
Fisher's Exact Test	25.995			.019		
Linear-by-Linear Association	12.443 ^c	1	.000	.000	.000	.000
N of Valid Cases	158					

a. 14 cells (56.0%) have expected count less than 5. The minimum expected count is .09.

b. Cannot be computed because there is insufficient memory.

c. The standardised statistic is 3.527.

Even though the Chi-square test led to rejecting the argument that there was small association between Questions 9 and 31, the Gamma, Pearson's and Spearman's correlation values were 0.311, 0.282 and 0.235 respectively (see Table 7-60). This shows there is a weak significant positive correlation between the Vision and knowledge creation.

Table 7-60: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 9 And 31

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.311	.105	2.878	.004	.003
Ordinal by Ordinal Spearman Correlation	.235	.080	3.020	.003 ^d	.
Interval by Interval Pearson's R	.282	.088	3.664	.000 ^d	.000
N of Valid Cases	158				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Cannot be computed because there is insufficient memory.

d. Based on normal approximation.

7.8.12 Questions 36 and 48

The cross-tabulation of Questions 36 and 48 directly compared the perception that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ with the view that, ‘organisational strategy motivates the workforce for the Vision 2030’ – see Table 7-61.

Table 7-61: Cross-Tabulation Results For Questions 36 And 48

	Your organisational strategy motivates the workforce for the Vision 2030					Total
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree 1	0	0	0	0	1
	Agree 0	5	8	8	1	22
	Strongly agree 3	7	8	17	8	43
Total	4	12	16	25	9	66

Using the data in Table 7-61, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-61 has been calculated to be 8; this means that there were five columns and three rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-62 is 21.282, which is more than the critical value of 15.5073. Fisher's Exact Test value is 12.250 and $p > 0.05$.
- (iv) The conclusion from the test is a failure to reject the null hypothesis that there is no association between, ‘human resource development could be valuable for Qatar to gain competitive advantage’ with the reasoning that, ‘organisational strategy motivates the workforce for the Vision 2030’.

Table 7-62: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 48

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	21.282 ^a	8	.006	.015		
Likelihood Ratio	12.963	8	.113	.065		
Fisher's Exact Test	12.250			.095		
Linear-by-Linear Association	3.516 ^b	1	.061	.066	.040	.014
N of Valid Cases	66					

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .06.

b. The standardised statistic is 1.875.

The correlation between responses to both Questions 36 and 48, shown in Table 7-63, indicates that the Gamma value was 0.284, Pearson's value was 0.233 and the Spearman's value was 0.185. This means that there was a weak level of correlation between human resource development and the strategy for implementing the Vision for organisations in Qatar, and $p > 0.05$.

Table 7-63: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 48

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.284	.174	1.546	.122	.132
Ordinal Spearman Correlation	.185	.118	1.505	.137 ^c	.138
Interval by Pearson's R	.233	.140	1.913	.060 ^c	.066
N of Valid Cases	66				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.9 Primary Data for Hypothesis 3

The null hypothesis 3 is that, ‘talent management is significantly inadequate to stimulate knowledge base economy’. The argument within hypothesis 3 was to establish the key areas used by organisations to identify talent. In addition, the talent identification was presupposed to be inadequate for a KBE – the Vision that Qatar is to pursue until 2030.

7.9.1 Questions 36 and 37

It was envisaged that Questions 36 and 37 were crucial to the ascertainment of hypothesis 3; hence the two questions were also tested in terms of association and correlation. Question 36 stated that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ while Question 37 stated that, ‘Qatari organisations do not use talent management in nurturing and developing local talent’.

Table 7-64: Cross-Tabulation Results For Questions 36 And 37

		Qatari organisations do not use talent management in nurturing and developing local talent					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	0	1	0	0	0	1
	Agree	0	1	10	9	3	23
	Strongly agree	2	6	8	16	11	43
Total		2	8	18	25	14	67

Using the data in Table 7-64, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-64 has

been calculated to be 8; this means that there were five columns and three rows that were found to be valid from the cross-tabulation using SPSS;

- (iii) The result of the Chi-square test in Table 7-65 is 14.324, which is less than the critical value of 15.5073. Fisher's Exact Test value is 12.451 and $p > 0.05$.
- (iv) The conclusion from the test is a failure to reject the null hypothesis that there is weak association between the view that human resource development could be valuable for Qatar to gain competitive advantage and the perception that, 'Qatari organisations do not use talent management in nurturing and developing local talent'.

Table 7-65: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 37

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	14.324 ^a	8	.074	.059		
Likelihood Ratio	12.013	8	.151	.088		
Fisher's Exact Test	12.451			.104		
Linear-by-Linear Association	1.010 ^b	1	.315	.361	.185	.048
N of Valid Cases	67					

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .03.

b. The standardised statistic is 1.005.

Questions 36 and 37 were also assessed in terms of their correlation using Pearson's and Spearman's correlation methods in SPSS; the results in Table 7-66 shows that there was a Gamma of 0.175, a 0.124 Pearson Correlation coefficient and 0.11 Spearman's correlation coefficient. This implies there has been a small but positive correlation between the responses of the two questions with significance of $p > 0.05$.

Table 7-66: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 37

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.175	.181	.945	.345	.359
Ordinal Spearman Correlation	.111	.119	.903	.370 ^c	.370
Interval by Pearson's R	.124	.129	1.005	.319 ^c	.361
Interval					
N of Valid Cases	67				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.9.2 Questions 36 and 39

Questions 36 and 39 were also tested for their level of association or independence using the SPSS chi-square test. Question 36 stated that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ while Question 39 stated that, ‘Qatari organisations do not recognise intellectual capital as a local asset base’ with the cross-tabulation result shown in Table 7-67. There were only four valid responses under the columns and three valid rows – see Table 7-67. The calculation of the degrees of freedom was therefore based on four columns and three rows.

Using the data in Table 7-67, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 12.5916;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-67 has been calculated to be 6; this means that there were four columns and three rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-68 is 18.113, which is greater than the critical value of 12.5916. Fisher's Exact Test value is 17.203 and $p < 0.05$.
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is a weak association between the view that human resource development

could be valuable for Qatar to gain competitive advantage and the perception that, ‘Qatari organisations do not use talent management in nurturing and developing local talent’.

Table 7-67: Cross-Tabulation Results For Questions 36 And 39

		Qatari organisations do not recognise intellectual capital as a local asset base				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	0	0	0	1	1
	Agree	1	10	11	1	23
	Strongly agree	13	7	13	10	43
	Total	14	17	24	12	67

Table 7-68: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 39

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	18.113 ^a	6	.006	.001		
Likelihood Ratio	18.803	6	.005	.002		
Fisher's Exact Test	17.203			.002		
Linear-by-Linear Association	1.012 ^b	1	.314	.354	.187	.052
N of Valid Cases	67					

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .18.

b. The standardised statistic is -1.006.

It was also possible to use SPSS to calculate Gamma, Pearson’s and Spearman’s

correlations, as shown in Table 7-69. The Gamma value was -0.84, Pearson's correlation was -0.124 and the Spearman's correlation coefficient was -0.054. It can therefore be concluded that there is a negative correlation between the perception that, 'human resource development could be valuable for Qatar to gain competitive advantage' and the view that, 'Qatari organisations do not recognise intellectual capital as a local asset base'. The correlation is significant at $p > 0.05$.

Table 7-69: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 37

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance	
Ordinal by Ordinal	Gamma	-.084	.176	-.474	.636	.661
Interval by Interval	Spearman Correlation	-.054	.118	-.438	.663 ^c	.664
Interval by Interval	Pearson's R	-.124	.120	-1.006	.318 ^c	.354
N of Valid Cases		67				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.9.3 Questions 36 and 43

The association between Questions 36 and 43 was also tested using the Chi-square technique in SPSS. While Question 36 stated that, 'human resource development could be valuable for Qatar to gain competitive advantage', Question 43 stated that respondents', 'organisations have a human resource development (HRD) strategy'. The idea was to assess the level of association between national vision for human development and the actualisation thereof, based on human resource development strategies of the organisation. Table 7-70 shows the cross-tabulation between Questions 36 and 43, resulting in five columns and four rows, hence the degrees of freedom were calculated to be 8.

Table 7-70: Cross-Tabulation Results For Questions 36 And 43

		Your organisation has a human resource development (HRD) strategy					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	0	0	0	1	0	1
	Agree	1	4	11	7	0	23
	Strongly agree	4	7	6	16	10	43
Total		5	11	17	24	10	67

Using the data in Table 7-70, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-70 have been calculated to be 8; this means that five columns and three rows were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-71 is 14.721, which is less than the critical value of 15.5073. Fisher's Exact Test value is 16.288 and $p < 0.05$.
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is a weak association between, 'human resource development could be valuable for Qatar to gain competitive advantage' and the view that, 'organisations have a human resource development (HRD) strategy'.

Table 7-71: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 43

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	14.721 ^a	8	.065	.078		
Likelihood Ratio	17.653	8	.024	.010		
Fisher's Exact Test	16.288			.014		
Linear-by-Linear Association	.839 ^b	1	.360	.408	.207	.048
N of Valid Cases	67					

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .07.

b. The standardised statistic is .916.

The correlation coefficient between the argument that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ (Question 36) and the arguments that respondents’, ‘organisations have a human resource development (HRD) strategy’ (Question 43) produced the following results: The Gamma value was 0.297, Pearson’s correlation value was 0.113 while the Spearman’s correlation value was 0.206. The results in Table 7-72 indicate a positive but weak correlation between the arguments for human resource development and the strategy $p > 0.05$.

Table 7-72: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 43

		Symmetric Measures				
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal	Gamma	.297	.160	1.812	.070	.104
Ordinal by Interval	Spearman Correlation	.206	.111	1.698	.094 ^c	.094
Interval by Interval	Pearson's R	.113	.109	.915	.364 ^c	.408
N of Valid Cases		67				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.9.4 Questions 36 and 46

The cross-tabulation of Question 36 with Question 46 was aimed at assessing the argument that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ against the perception that, respondents’, ‘organisations have a strategy to develop their talent’ – as shown in Table 7-73.

Table 7-73: Cross-Tabulation Results For Questions 36 And 46

		Your organisation has a strategy to develop their talent					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	0	1	0	0	0	1
	Agree	1	6	7	7	1	22
	Strongly agree	4	7	10	16	6	43
Total		5	14	17	23	7	66

Using the data in Table 7-73, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-73 has been calculated to be 8; this means that there were five columns and three rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-74 is: 6.786 which is less than the critical value of 15.5073, Fisher's Exact Test value is 7.418 and $p > 0.05$.
- (iv) The conclusion from the test is a failure to reject the null hypothesis that there is a weak association between, 'human resource development could be valuable for Qatar to gain competitive advantage' and the perception that, 'organisations have a strategy to develop their talent'. The result, therefore, shows that there is a lack of association between human resource development and the way that organisations have been strategising to develop their own talent.

Table 7-74: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 66

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.786 ^a	8	.560	.528		
Likelihood Ratio	6.368	8	.606	.555		
Fisher's Exact Test	7.418			.586		
Linear-by-Linear Association	1.756 ^b	1	.185	.217	.113	.032
N of Valid Cases	66					

a. 10 cells (66.7%) have expected count less than 5. The minimum expected count is .08.

b. The standardised statistic is 1.325.

On the contrary, the Gamma, Pearson's and Spearman's correlation coefficient values for Questions 36 and 46 were found to be 0.241, 0.164 and 0.157 respectively – see Table 7-75. The correlation values show a very weak positive correlation between Questions 36 and 46, which would tally with the Chi-squared test statistic in Table 7-75 $p > 0.05$.

Table 7-75: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 46

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Gamma	.241	.174	1.339	.181	.199
Ordinal Spearman Correlation	.157	.117	1.272	.208 ^c	.206
Interval by Pearson's R	.164	.108	1.333	.187 ^c	.217
Interval					
N of Valid Cases	66				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.9.5 Questions 36 and 49

The cross-tabulation for Questions 36 and 49 was used to assess the association between the argument that, ‘human resource development could be valuable for Qatar to gain competitive advantage’ and the perception that, ‘talent management could lead organisations achieve the Vision 2030’ – see Table 7-76.

Table 7-76: Cross-Tabulation Results For Questions 36 And 49

		Talent management could lead your organisation achieving the Vision 2030					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Human resource development could be valuable for Qatar to gain competitive advantage	Disagree	1	0	0	0	0	1
	Agree	0	3	3	14	2	22
	Strongly agree	2	3	6	16	16	43
Total		3	6	9	30	18	

66

Using the data in Table 7-76, the following details were obtained:

- (i) The critical value at $p = 0.05$ is 15.5073;
- (ii) The degrees of freedom obtained from the cross-tabulation Table 7-76 has been calculated to be 8; this means that there were five columns and three rows that were found to be valid from the cross-tabulation using SPSS;
- (iii) The result of the Chi-square test in Table 7-77 is 29.182, which is more than the critical value of 15.5073. Fisher's Exact Test value is 16.139, $p < 0.05$.
- (iv) The conclusion from the test is a rejection of the null hypothesis that there is a weak association between, 'human resource development could be valuable for Qatar to gain competitive advantage' and the perception that, 'talent management could lead organisations achieve the Vision 2030'.

Table 7-77: Chi-Square Test Statistic Calculated Using The Cross-Tabulation Results For Questions 36 And 49

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	29.182 ^a	8	.000	.004		
Likelihood Ratio	15.958	8	.043	.020		
Fisher's Exact Test	16.139			.018		
Linear-by-Linear Association	5.225 ^b	1	.022	.027	.019	.007
N of Valid Cases	66					

a. 10 cells (66.7%) have expected count less than 5. The minimum expected count is .05.

b. The standardised statistic is 2.286.

The Gamma, Pearson and Spearman's correlation coefficients from Questions 36 and 49 show values of 0.369, 0.284 and 0.234 respectively (Table 7-78). This implies that there is a weak positive correlation between the perception that, 'human resource development could be valuable for Qatar to gain competitive advantage' and the perception that, 'talent management could lead organisations achieve the Vision 2030', $p > 0.05$.

Table 7-78: Correlation Coefficient Results Used For The Symmetric Measure Between Questions 36 And 44

	Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance	Exact Significance
Ordinal by Ordinal Gamma	.369	.171	1.987	.047	.059
Ordinal by Ordinal Spearman Correlation	.234	.115	1.924	.059 ^c	.059
Interval by Interval Pearson's R	.284	.157	2.365	.021 ^c	.027
N of Valid Cases	66				

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

7.10 Multiple Regression Test For Nine Key Factors From Hypotheses Testing

Using the ranked factors from section 7.4 of this dissertation, it was possible to select the most ideal elements to include in the multiple linear regression test. The argument from Moore et al. (2011) and Black (2010) has been that it would be folly to use all possible factors in the multiple linear regression test because this could introduce multi-collinearity and overfitting, especially if the factors are not giving quantitative data per se; rather they are using categorical data, from Likert scales. Therefore, the aim was to use ranking as a way to facilitate the selection process of the most important factors that could be used in the multiple regression so as to test the one-to-many relationships between these factors. In an ideal situation, all independent variables would correlate with the dependent variable but not with each other (Black, 2010; Moore et al., 2011) because the multiple regression is but a sum of the sub-linear relationships between the many independent variables and the dependent variables. However, the independent variables could be both quantitative and qualitative, hence it was necessary to use Gamma statistical analysis as a means to test the ranked factors from section 7.4 as shown in section 7.10.1 below.

7.10.1 Gamma Statistic as a Precursor to Multiple Regression

Using the information presented in Tables 7-79 and 7-80, it was possible to identify the Gamma value. The most important element of the Gamma value is to assess the sign of the factors. For instance, if the value is negative, it means the factors are inversely related; this means that the increase in one activity brings about a decrease in the other. On the other hand, if the Gamma value is positive, that means that the factors are directly related such that the increase in one factor will have a positive impact in the other (or increase the other).

The second most important value from the Gamma statistical test is the approximate significant values. These, according to Tables 7-79 and 7-80, have been presented in the following way: the level of significance, at p value less than 0.05, has been given a single star (*); where the level of significance at p value is less than 0.01, this has been given two stars (**); and where the level of significance at the p value is less than 0.001, the result has been given three stars (***)

Table 7-79: Gamma Test Results For The Ranked Factors Against The Categorical Questions On The Qatar National Vision 2030 And A Knowledge-Based Economy

Question No.	Unique ID for Questions	The importance factors to support the achievement of a knowledge-based economy in Qatar.								
		Leadership	Top Management	Infrastructure	Human Capital	Innovation & Research	Incentives	Culture	Vision & Strategy	ICT
9	QNV_Development of Qatari	0.192	0.255	0.383***	0.131	0.064	0.11	0.228*	0.275*	0.226
14	QNV_Rely on Oil&Gas	-0.078	0.005	-0.085	-0.033	0.082	0.066	-0.052	0.007	-0.028
15	QNV_Incentivise Organisations	0.269*	0.333**	0.424***	0.415***	0.237*	0.447***	0.384**	0.375**	0.409***
16	QNV_Incentivise Employee	0.298*	0.329**	0.321**	0.416***	0.201	0.391***	0.332**	0.411***	0.369**
17	QNV_Motivated to be Leader	0.331**	0.325**	0.37***	0.531***	0.338**	0.326**	0.449***	0.308**	0.326**
18	KBE_Transforming Economy	0.238*	0.128	0.232*	0.291**	0.179	0.124	0.155	0.183	0.187
19	KBE_Implementing KM	0.211	0.2	0.161	0.220*	0.152	0.103	0.221*	0.199*	0.217*
20	KBE_Organisational Learning	0.278**	0.223*	0.051	0.187	-0.017	0.011	0.134	0.101	0.181
21	KBE_Competitive Advantage	0.581***	0.567***	0.381***	0.445***	.362**	0.368***	0.510***	0.595***	0.473***
24	KBE_Favor ICT	-0.168	*-0.214	-0.139	-0.151	-0.106	-0.071	-0.075	-0.141	*-0.183
25	KBE_Employee Learning	0.012	-0.054	0.007	-0.034	-0.044	-0.023	-0.001	-0.136	-0.027
26	KBE_Benchmark	0.147	0.017	0.107	0.136	0.108	0.058	0.019	0.063	0.046
27	KBE_Value of Knowledge	0.366**	0.361**	0.274*	0.361**	0.334**	0.248*	0.344**	0.439***	0.273*
30	KBE_Citiies Design	-0.006	-0.048	-0.063	-0.069	-0.1	-0.047	-0.055	-0.026	0.098
31	KBE_Organisational Culture	0.286**	0.135	0.225*	0.178	0.122	0.99	0.147	0.135	0.135
32	KBE_Leadership & Authority	0.405***	0.261*	0.261*	0.191	0.056	0.076	0.217*	0.173	0.224*
33	KBE_Technology	0.44***	0.320**	0.257*	0.284*	0.224	0.252*	0.383***	0.292*	0.510***
43	KBE_Create Knowledge	0.386***	0.229*	0.366***	0.243*	0.283**	0.03	0.129	0.202*	0.144

*** p<.001 **p<.01 *p<.05

Table 7-80: Gamma Test Results For The Strategic Objectives That Support Organisational Learning

Question No.	Unique ID for questions	Organisation has identified the behaviour and skills needed to support organizational strategic objectives for the following:					
		Leadership/Executive Team	Line Management	High Potentials	Engineers	Graduates	Administrative
36	TM_Competitive Advantage	0.106	-0.061	0.064	-0.078	-0.062	0.19
37	TM_HRD	-0.203	-0.264	-0.174	-0.051	*-0.328	-0.178
39	TM_Intellectual Capital	-0.242	*-0.386	*-0.313	-0.228	*-0.268	**-.0.38
42	TM_KBE	0.155	0.026	0.154	0.09	-0.28	0.269
43	TM_HRD Strategy	0.413**	0.452**	0.369*	0.359**	0.458***	0.607***
44	TM_Develop Talent	0.337**	0.541***	0.566***	0.522***	0.450**	0.623***
45	TM_Identification Program	0.281*	0.394*	0.496**	0.377*	0.476***	0.741***
46	TM_Strategy	0.347**	0.479**	0.446**	0.455**	0.532***	0.587***
47	TM_Framework	0.423**	0.440***	0.351*	0.397**	0.378**	0.585***
48	TM_Motivation	0.510***	0.627***	0.656***	0.642***	0.548***	0.743***
49	TM_Lead organisation	0.377*	0.508**	0.533**	0.495***	0.483***	0.588***

*** p<.001 **p<.01 *p<.05

The results from Tables 7-79 and 7-80 report a pattern where the questions asked to respondents could be mapped with the level of significance of the factors, as perceived by respondent. Therefore, the Gamma test facilitated the process of isolating key factors and the questions necessary to determine the hypotheses tests and also helped in answering the research questions. Furthermore, the Gamma results were critical to establishing the pattern in the multiple linear regression, as discussed in sections 7.10.2 to 7.11.7.

The multiple regression analysis performed on the listed factors were mainly aimed at assessing the support for the achievement of a knowledge-based economy in Qatar. These factors were regressed as the dependent factors. These factors are:

- a) Leadership
- b) Top management
- c) Infrastructure
- d) Human capital
- e) Innovation and research
- f) Incentives
- g) Culture
- h) Vision and strategy
- i) ICT

To start the process, it was vital to undertake a test of the reliability and validity of the factors using Cronbach's Alpha (Pallant, 2013). For this section, Cronbach's alpha was found to be 0.850, as shown in Table 7-81. This value falls under the category of good to excellent reliability.

Table 7-81: Reliability Of The Statistics On The Multiple Linear Regression

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.850	.865	23

From section 1.7, there are three hypotheses that have been used to guide the selection of the questions used in order to test the stated hypotheses. Therefore, the Unique

Identification code in Table 7-79 from the Gamma analysis was used as an indicator of the 18 independent variables or predictors used in the multiple linear regression. Table 7-82 matches the unique identification code from Gamma into full questions listed in alphabetical order underneath the hypothesis it represents. For instance, Question A has been placed under hypothesis 1 while Question 7 has been placed under hypothesis 3. The rationale for presenting the information in Table 7-82 was to ensure that the multiple regression model could be used to assess how well the predictors performed against each of the nine dependent variables. Table 7-82, therefore, offers a matrix view of all of the predictors against the hypotheses.

Table 7-82: Hypotheses 1 To 3 And The Questions Used As Predictors In Multiple Regression

Hypothesis 1	Hypothesis 2	Hypothesis 3
H ₀ : The Qatari vision 2030, as a policy, has no significant impact on the process of actualisation of the KBE in Qatar. H ₁ : H ₀ is not true	H ₀ : The current organisational set up in Qatar is inadequate for the economy to develop to a KBE by 2030 H ₁ : H ₀ is not true	H ₀ : Talent management is significantly adequate to stimulate knowledge-based economy H ₁ : H ₀ is not true
A. Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	B. Your company relies on business from the oil and gas sectors of the economy	F. Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge
C. The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	D. The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	G. Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing
I. Knowledge-based economy could be valuable for	E. You are motivated to develop	T. Qatari organisations do not use talent management in nurturing

Qatar to gain competitive advantage	yourself in the organisation to become a leader	and developing local talent
M. The reliance on knowledge could be valuable for Qatar to gain competitive advantage	H. Your organisation is keen to implement organisational learning at all management levels of the company	S. Qatari organisations do not recognise intellectual capital as a local asset base
N. Qatar cities are designed to support a sustainable economy	J. Your organisation ignores individual knowledge and experience in favour of ICT and systems	V. Talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030
P. Leadership and authority are available to support the scope of the Qatar National Vision 2030	K. Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	W. Your organisation has a human resource development (HRD) strategy
Q. New technology plays a supporting role in the Vision 2030	L. The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	X. Your organisation pick people to develop as future talent for the company
S. Human resource development could be valuable for Qatar to gain competitive advantage	O. The culture in your organisation allows for creating knowledge	Y. Your organisation has a talent identification programme
	R. Your organisation creates knowledge that is worth capturing and sharing within the economy	Z. Your organisation has a strategy to develop their talent
		AA. A framework or plan is required to run the business for Knowledge-Based Economy (KBE)
		BB. Your organisational strategy motivates the workforce for the Vision 2030
		CC. Talent management could lead your organisation achieving the Vision 2030

7.10.2 Leadership as a factor for KBE in Qatar

In order to predict the impact of leadership on the three hypotheses, it was presupposed that, as a factor, leadership has no significant impact on the subset hypotheses, which means that it has no impact on: the process of actualising the KBE in Qatar, the current organisational set up in Qatar, which is inadequate for the economy to develop to a KBE by 2030, and the talent management in place in the country, which is significantly inadequate to stimulate a knowledge-based economy. The decision rule from the regression model is based on a 95% level of confidence (see Table 7-83) where, if the level of significance (p value) is less than 0.05, the hypothesis is accepted (or there is a failure to reject the hypothesis). Similarly, if the p value is more than 0.05, the hypothesis is rejected. The hypotheses have been tabulated in Table 7-82 so as to be aligned with section 1.7 of this research.

The regression model for leadership as a dependent variable, with the other 18 questions acting as independent variables (predictors), has been shown in Table 7-82 below. The correlation coefficient is 0.535; this implies that 53.5% of the variability of the model can be predicted using the predictor variables listed in the model (and Table 7-83). The difference between the value of R and Adj R squared (0.286 – 0.178) is 0.108; this means that 89.2% of the sample used for this survey is a good predictor for the entire sample population.

Table 7-83: Model Summary For Leadership As Dependand Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.535 ^a	.286	.178	.85624

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; Your organisation ignores individual knowledge and experience in favour of ICT and systems; You are motivated to develop yourself in the organisation to become a leader; Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; New technology plays a supporting role in the Vision 2030; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; Your organisation is keen to implement organisational learning at all management levels of the company; A knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030).

Using the results presented in Table 7-84, it can be observed that the presupposition for leadership and its impact on the three hypotheses would be rejected for 16 independent variables; however, it can be accepted for the independent variable H, in Table 7-82, which states that, 'your organisation is keen to implement organisational learning at all management levels of the company' and the independent variable R,

which states that, ‘your organisation creates knowledge that is worth capturing and sharing within the economy’. The two variables scored 0.044 and 0.034 levels of significance respectively (Table 7-84).

Table 7-84: Coefficients For Regression On Leadership As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.938	.859		2.257	.026
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.216	.117	-.176	-1.839	.068
	Your company relies on business from the oil and gas sectors of the economy	-.046	.057	-.068	-.802	.424
	The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	.025	.180	.022	.141	.888
	The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	.191	.203	.151	.941	.349
	You are motivated to develop yourself in the organisation to become a leader	.033	.092	.033	.359	.720

Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-183	.108	-.160	-1.690	.094
Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	-.132	.118	-.153	-1.114	.268
Your organisation is keen to implement organisational learning at all management levels of the company	.221	.109	.262	2.033	.044
A knowledge-based economy could be valuable for Qatar to gain competitive advantage	.241	.157	.164	1.533	.128
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	-.010	.083	-.011	-.122	.903
Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	-.095	.090	-.109	-1.048	.297
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.046	.109	-.054	-.421	.674
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.133	.138	.099	.964	.337

Qatar cities are designed to support a sustainable economy	-.116	.075	-.144	-1.541	.126
The culture in your organisation allows for creating knowledge	.041	.120	.049	.344	.731
Leadership and authority are available to support the scope of the Qatar National Vision 2030	.097	.110	.103	.883	.379
New technology plays a supporting role in the Vision 2030	.158	.133	.122	1.190	.236
Your organisation creates knowledge that is worth capturing and sharing within the economy	.220	.103	.244	2.145	.034

This means that leadership affects the rejected subset hypotheses; as a result, leadership is an important factor that affects the following:

- The Qatari Vision 2030, as a policy, which has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop into a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.10.3 Top Management

In order to predict the impact of top management on the three hypotheses, it was presupposed that, as a factor, top management has no significant impact on the sub hypotheses, which means that it has no impact on the process of actualising the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop to a KBE by 2030, and the current talent management measures, which are significantly inadequate to stimulate a knowledge-based economy. The regression model for top management as a dependent variable, taking the other 18 questions as

independent variables (predictors), is shown in Table 7-85 below. The correlation coefficient is 0.535, which implies that 53.5% of the variability of the model can be predicted using the predictor variables listed in the model (and in Table 7-86). The difference between the value of R and Adj R squared ($0.286 - 0.178$) = 0.108, meaning that 89.2% of the sample used for this survey is a good predictor for the entire sample population.

Table 7-85: Model Summary For Top Management As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.535 ^a	.286	.178	.93597

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; Your organisation ignores individual knowledge and experience in favour of ICT and systems; You are motivated to develop yourself in the organisation to become a leader; Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; New technology plays a supporting role in the Vision 2030; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; Your organisation is keen to implement organisational learning at all management levels of the company; A knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of Qatar National Vision 2030 (QNV 2030).

Table 7-86: Model Summary For Top Management As A Dependant Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.639	.939		1.747	.083
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.136	.128	-.101	-1.060	.291
	Your company relies on business from the oil and gas sectors of the economy	-.026	.062	-.036	-.425	.672
	The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	-.018	.196	-.014	-.090	.928
	The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	.169	.221	.122	.762	.448

You are motivated to develop yourself in the organisation to become a leader	.018	.100	.016	.179	.858
Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-.255	.118	-.205	-2.159	.033
Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.087	.130	.093	.676	.501
Your organisation is keen to implement organisational learning at all management levels of the company	.236	.119	.257	1.994	.048

A knowledge-based economy could be valuable for Qatar to gain competitive advantage	.370	.172	.230	2.154	.033
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	-.112	.090	-.111	-1.236	.219
Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	-.123	.099	-.130	-1.251	.213
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.147	.120	-.157	-1.230	.221
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.205	.150	.140	1.363	.175
Qatar cities are designed to support a sustainable economy	-.023	.082	-.027	-.285	.776

The culture in your organisation allows for creating knowledge	-.135	.131	-.147	-1.034	.303
Leadership and authority are available to support the scope of the Qatar National Vision 2030	.084	.120	.081	.697	.487
New technology plays a supporting role in the Vision 2030	.160	.145	.113	1.104	.272
Your organisation creates knowledge that is worth capturing and sharing within the economy	.150	.112	.152	1.336	.184

Using the results presented in Table 7-86, it can be observed that the presupposition for top management and its impact on the three hypotheses would be rejected for 15 independent variables; however, it can be accepted for independent variable H in Table 7-82, which states that, ‘your organisation is keen to implement organisational learning at all management levels of the company’ with a score of 0.048, which is less than the decision rule of 0.05, hence accepting the presupposition for the inadequacy of top management on this issue.

Secondly, top management was found to be adequate for independent variable F, which states that, ‘local Qataris can fully support initiatives aimed at transforming Qatar’s economy from one heavily reliant on oil and gas to an economy based on knowledge’ with a score of 0.033 and the independent variable I, which states that a, ‘knowledge-based economy could be valuable for Qatar to gain competitive advantage’ with a score of 0.033. These scores are less than the decision rule of 0.05; hence, it implies that top management affects the rejected subset hypotheses. As a

result, top management is considered an important factor that affects the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop into a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.10.4 Infrastructure

In order to predict the impact of infrastructure on the three hypotheses, it was presupposed that, as a factor, infrastructure has no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop a KBE by 2030, the current talent management measures, which are significantly inadequate to stimulate knowledge-based economy. The regression model for infrastructure as a dependent variable, with the other 18 questions acting as independent variables (predictors), has been shown in Table 7-87. The correlation coefficient is 0.528; this implies that 52.8% of the variability of the model can be predicted using the predictor variables listed in the model (and Table 7-88). The difference between the value of R and Adj R squared ($0.279 - 0.164$) = 0.115, meaning that 88.5% of the sample used for this survey is a good predictor for the entire sample population

Table 7-87: Model Summary For Infrastructure As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.528 ^a	.279	.164	.85627

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge; Your organisation ignores individual knowledge and experience in favour of ICT and systems; You are motivated to develop yourself in the organisation to become a leader; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; New technology plays a supporting role in the Vision 2030; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; Your organisation provides a mechanism for employees to learn from each other regardless of the management level.; Your organisation is keen to implement organisational learning at all management levels of the company; knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030).

Using the results presented in Table 7-88, it can be observed that the presupposition for infrastructure and its impact on the three hypotheses would be rejected for 15 independent variables; however, it can be accepted for independent variable L, which stated that, 'the industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves' with a score of 0.028;

independent variable M which stated that, ‘the reliance on knowledge could be valuable for Qatar to gain competitive advantage’ with a score of 0.020, and independent variable R, which stated that, ‘your organisation creates knowledge that is worth capturing and sharing within the economy’ with a score of 0.012. The scores for these three variables were less than the decision rule of 0.05, which indicates that infrastructure affected the rejected subset hypotheses, so infrastructure as a factor has an impact on:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge based in Qatar.

Table 7-88: Coefficients For Regression On Infrastructure As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.341	.909		1.476	.143
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	.018	.122	.015	.149	.882

Your company relies on business from the oil and gas sectors of the economy	-.045	.059	-.068	-.770	.443
The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	.196	.191	.172	1.028	.306
The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	-.072	.212	-.058	-.340	.734
You are motivated to develop yourself in the organisation to become a leader	.058	.093	.059	.628	.531

Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-0.047	.112	-0.041	-0.421	.675
Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.074	.120	.086	.616	.539
Your organisation is keen to implement organisational learning at all management levels of the company	-.179	.111	-.213	-1.620	.108

A knowledge-based economy could be valuable for Qatar to gain competitive advantage	.005	.162	.004	.033	.974
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	.026	.092	.028	.287	.774
Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	.032	.096	.037	.331	.742
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.254	.114	-.295	-2.226	.028

The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.329	.140	.250	2.354	.020
Qatar cities are designed to support a sustainable economy	-.117	.076	-.146	-1.534	.128
The culture in your organisation allows for creating knowledge	.173	.122	.206	1.418	.159
Leadership and authority are available to support the scope of the Qatar National Vision 2030	.115	.111	.124	1.039	.301
New technology plays a supporting role in the Vision 2030	.027	.135	.021	.198	.843

Your organisation creates knowledge that is worth capturing and sharing within the economy	.268	.105	.298	2.562	.012
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a. Dependent Variable: Infrastructure

7.10.5 Human Capital

In order to predict the impact of human capital on the three hypotheses, it was presupposed that, as a factor, human capital has no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualising the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop to a KBE by 2030, and talent management is significantly inadequate to stimulate knowledge-based economy. The human capital factor for KBE has a model with a correlation value of 0.488, as summarised in Table 7-89. This shows that 48.8% of the variability of the model could be predicted using the variables of this model. The difference between R square and Adj R square (0.239-0.122) is 0.117. This implies that 88.3% of the sample used for the survey is a good predictor of the population.

Table 7-89: Model Summary For Human Capital As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.488 ^a	.239	.122	.91069

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; Local Qataris can fully support initiatives aimed at transforming Qatar’s economy from one heavily reliant on oil and gas to an economy based on knowledge; Your organisation ignores individual knowledge and experience in favour of ICT and systems; You are motivated to develop yourself in the organisation to become a leader; New technology plays a supporting role in the Vision 2030; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; Your organisation is keen to implement organisational learning at all management levels of the company; knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030).

Using the results presented in Table 7-90, it can be observed that the presupposition for human capital and its impact on the three hypotheses would be rejected for 17 independent variables; however, it can be accepted for independent variable E, which stated that, ‘you are motivated to develop yourself in the organisation to become a leader’, with a score of 0.033. This score is less than the 0.05 level of significance. As

a result, human capital has an influence on the rejected subset hypotheses; as a result, human capital has an impact on:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualising the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

Table 7-90: Coefficients For The Regression On Human Capital As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.415	.916		1.545	.125
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.233	.125	-.185	-1.863	.065
	Your company relies on business from the oil and gas sectors of the economy	-.023	.061	-.034	-.384	.701

The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	.156	.193	.132	.810	.420
The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	.045	.216	.035	.210	.834
You are motivated to develop yourself in the organisation to become a leader	.212	.098	.205	2.162	.033
Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-.039	.119	-.033	-.327	.744

Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.093	.126	.105	.734	.464
Your organisation is keen to implement organisational learning at all management levels of the company	.066	.115	.076	.572	.569
A knowledge-based economy could be valuable for Qatar to gain competitive advantage	-.076	.169	-.050	-.449	.654
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	-.071	.089	-.073	-.797	.427

Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	-.039	.096	-.043	-.403	.688
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.042	.118	-.047	-.352	.726
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.281	.170	.187	1.649	.102
Qatar cities are designed to support a sustainable economy	-.059	.080	-.071	-.738	.462

The culture in your organisation allows for creating knowledge	-.030	.128	-.035	-.236	.814
Leadership and authority are available to support the scope of the Qatar National Vision 2030	-.114	.117	-.118	-.973	.333
New technology plays a supporting role in the Vision 2030	.275	.141	.208	1.953	.053
Your organisation creates knowledge that is worth capturing and sharing within the economy	.196	.114	.212	1.726	.087

a. Dependent Variable: Human Capital (Education & Training)

7.10.6 Innovation and Research

In order to predict the impact of innovation and research on the three hypotheses, it was presupposed that, as a factor, innovation and research has no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualising the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop to a KBE by 2030, and talent management is significantly inadequate to stimulate knowledge-based economy. The innovation and research factor for KBE has a model with a correlation value of 0.512, as summarised

in Table 7-91. This shows that 51.2% of the variability of the model could be predicted using the variables of this model. The difference between R square and Adj R square (0.262-0.151) is 0.111. This implies that the 88.9% of the sample used for the survey is a good predictor of the population.

Table 7-91: Model Summary For Innovation And Research As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.512 ^a	.262	.151	1.00617

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; Your organisation ignores individual knowledge and experience in favour of ICT and systems; You are motivated to develop yourself in the organisation to become a leader; Local Qataris can fully support initiatives aimed at transforming Qatar’s economy from one heavily reliant on oil and gas to an economy based on knowledge; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; New technology plays a supporting role in the Vision 2030; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; Your organisation is keen to implement organisational learning at all management levels of the company; knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030).

Using the results presented in Table 7-92, it can be observed that the presupposition for innovation and research has no impact on the three hypotheses and would be rejected for 14 independent variables; however, it can be accepted for the following independent variables (sourced from Table 7.82):

- (i) G – which states that, ‘professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing’ with a score of 0.018 level of significance, and impacts hypothesis 3;
- (ii) H – which states that, ‘your organisation is keen to implement organisational learning at all management levels of the company’ with a score of 0.048 level of significance and impacts hypothesis 2;
- (iii) R – which states that, ‘your organisation creates knowledge that is worth capturing and sharing within the economy’ with a level of significance score of 0.017 and impacts hypothesis 2; and
- (iv) M – which states that, ‘the reliance on knowledge could be valuable for Qatar to gain competitive advantage’ with a level of significance value of 0.004, and impacts hypothesis 1.

The four independent variables had a p value of less than the 0.05 level of significance.

Table 7-92: Coefficients For The Regression On Innovation And Research As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.509	1.009		1.496	.137
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.168	.138	-.118	-1.218	.226
	Your company relies on business from the oil and gas sectors of the economy	.039	.067	.050	.581	.562
	The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	.121	.211	.091	.571	.569

The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	-0.114	0.238	-0.078	-0.479	0.632
You are motivated to develop yourself in the organisation to become a leader	0.191	0.108	0.164	1.776	0.078
Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-0.062	0.127	-0.047	-0.485	0.629

Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.333	.139	.334	2.394	.018
Your organisation is keen to implement organisational learning at all management levels of the company	-.255	.128	-.262	- 1.996	.048
A knowledge-based economy could be valuable for Qatar to gain competitive advantage	-.109	.185	-.064	-.591	.555
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	-.105	.097	-.099	- 1.084	.281

Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	-0.084	.106	-0.084	-.792	.430
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.006	.129	-.006	-.046	.964
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.479	.162	.310	2.963	.004
Qatar cities are designed to support a sustainable economy	-.039	.088	-.042	-.447	.656
The culture in your organisation allows for creating knowledge	-.080	.141	-.082	-.569	.571

Leadership and authority are available to support the scope of the Qatar National Vision 2030	-105	.129	-.097	-.813	.418
New technology plays a supporting role in the Vision 2030	.231	.156	.155	1.484	.140
Your organisation creates knowledge that is worth capturing and sharing within the economy	.293	.121	.281	2.424	.017

a. Dependent Variable: Innovation & Research

However, innovation and research has an effect on the rejected subset hypotheses. It could be concluded that innovation and research have an impact on:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.10.7 Incentives

In order to predict the impact of incentives on the three hypotheses, it was presupposed that, as a factor, incentives have no significant impact on the sub hypotheses, which means that it has no impact on the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the

economy to develop to a KBE by 2030, and talent management is significantly inadequate to stimulate knowledge-based economy. The incentives factor for KBE has a model with a correlation value of 0.465, as summarised in Table 7-93. This shows that 46.5% of the variability of the model could be predicted using the variables of this model. The difference between R square and Adj R square (0.217-0.094) is 0.123. This implies that the 87.7% of the sample used for the survey is a good predictor of the population.

Table 7-93: Model Summary For Incentives As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.465 ^a	.217	.094	1.05957

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; You are motivated to develop yourself in the organisation to become a leader; Your organisation ignores individual knowledge and experience in favour of ICT and systems; Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; New technology plays a supporting role in the Vision 2030; Your organisation is keen to implement organisational learning at all management levels of the company; knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)

Using the results presented in Table 7-94, it can be observed that the presupposition for incentives and its impact on the three hypotheses would be rejected for 17 independent variables; however, it can be accepted for independent variable A, which stated that, 'Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy', with a score of 0.042.

This score is less than the 0.05 level of significance, as it is part of testing hypothesis 1 from Table 7.82. That indicates that incentives have an effect on the rejected subset hypotheses; as a result, incentives as a factor impact the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

Table 7-94: Coefficients For Regression On Incentives As A Dependent Variable

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.691	1.084		.637	.525
Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.302	.147	-.209	-2.057	.042
Your company relies on business from the oil and gas sectors of the economy	-.010	.071	-.013	-.147	.883
The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	.222	.225	.165	.984	.327
The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	.276	.252	.187	1.093	.277

You are motivated to develop yourself in the organisation to become a leader	.095	.114	.081	.837	.404
Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-.110	.135	-.082	-.817	.416
Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.182	.148	.178	1.232	.221
Your organisation is keen to implement organisational learning at all management levels of the company	-.140	.135	-.141	-1.034	.303
A knowledge-based economy could be valuable for Qatar to gain competitive advantage	.079	.197	.046	.399	.690
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	.002	.106	.002	.023	.982
Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	-.013	.112	-.013	-.119	.906
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.011	.138	-.011	-.083	.934
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.198	.172	.126	1.148	.253
Qatar cities are designed to support a sustainable economy	-.065	.095	-.067	-.686	.494

The culture in your organisation allows for creating knowledge	.092	.149	.093	.619	.537
Leadership and authority are available to support the scope of the Qatar National Vision 2030	-.119	.136	-.108	-.875	.384
New technology plays a supporting role in the Vision 2030	.242	.166	.159	1.460	.147
Your organisation creates knowledge that is worth capturing and sharing within the economy	.105	.128	.100	.821	.413

a. Dependent Variable: Incentives

7.10.8 Culture

In order to predict the impact of culture on the three hypotheses, it was presupposed that, as a factor, culture has no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop to a KBE by 2030, and talent management is significantly inadequate to stimulate a knowledge-based economy. The culture factor for KBE has a model with a correlation value of 0.521, as summarised in Table 7-95. This shows that 52.1% of the variability of the model could be predicted using the variables of this model. The difference between R square and Adj R square (0.272-0.157) is 0.115. This implies that the 88.5% of the sample used for the survey is a good predictor of the population.

Table 7-95: Model Summary For Culture As Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521 ^a	.272	.157	.95825

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge; Your organisation ignores individual knowledge and experience in favour of ICT and systems; You are motivated to develop yourself in the organisation to become a leader; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; New technology plays a supporting role in the Vision 2030; Your organisation is keen to implement organisational learning at all management levels of the company; knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)

Using the results presented in Table 7-96, it can be observed that the presupposition for culture and its impact on the three hypotheses would be rejected for 17 independent variables; however, it can be accepted for independent variable E, which stated that, 'You are motivated to develop yourself in the organisation to become a

leader', with a score of 0.045. This score is less than the 0.05 level of significance, as it is part of testing hypothesis 2 from Table 7.82. The culture affects the rejected subset hypotheses; as a result, culture as a factor influences the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

Table 7-96: Coefficients For Regression On Culture As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.032	.985		-.032	.974
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.125	.135	-.093	-.932	.353
	Your company relies on business from the oil and gas sectors of the economy	-.052	.067	-.069	-.770	.443

The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	.132	.213	.104	.619	.537
The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	.137	.236	.099	.580	.563
You are motivated to develop yourself in the organisation to become a leader	.211	.104	.192	2.027	.045
Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-.220	.125	-.175	-1.762	.081

Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.256	.133	.262	1.918	.058
Your organisation is keen to implement organisational learning at all management levels of the company	-.087	.123	-.090	-.706	.482
A knowledge-based economy could be valuable for Qatar to gain competitive advantage	.299	.181	.185	1.649	.102
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	.095	.100	.092	.954	.342

Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	.082	.107	.084	.765	.446
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.122	.127	-.127	-.965	.336
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.111	.157	.075	.704	.483
Qatar cities are designed to support a sustainable economy	-.168	.086	-.183	-1.947	.054
The culture in your organisation allows for creating knowledge	.017	.135	.018	.126	.900

Leadership and authority are available to support the scope of the Qatar National Vision 2030	-.008	.127	-.008	-.065	.949
New technology plays a supporting role in the Vision 2030	.274	.156	.190	1.756	.082
Your organisation creates knowledge that is worth capturing and sharing within the economy	.048	.117	.047	.407	.685

a. Dependent Variable: Culture

7.10.9 Vision and Strategy

In order to predict the impact of vision and strategy on the three hypotheses, it was presupposed that, as a factor, vision and strategy have no significant impact on the sub hypotheses, which means that it has no impact on the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop a KBE by 2030, and talent management is significantly inadequate to stimulate knowledge-based economy. The vision and culture factor for KBE has a model with a correlation value of 0.501, as summarised in Table 7-97. This shows that 50.1% of the variability of the model could be predicted using the variables of this model. The difference between R square and Adj R square (0.251-0.138) is 0.113. This implies that the 88.5% of the sample used for the survey is a good predictor of the population.

Table 7-97: Model Summary For Vision And Strategy As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.501 ^a	.251	.138	.85280

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; Qatar cities are designed to support a sustainable economy; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; Your organisation ignores individual knowledge and experience in favour of ICT and systems; You are motivated to develop yourself in the organisation to become a leader; Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge; the Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; New technology plays a supporting role in the Vision 2030; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; Your organisation is keen to implement organisational learning at all management levels of the company; knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030).

Using the results presented in Table 7-98, it can be observed that the presupposition for vision and strategy, with its impact on the three hypotheses, would be rejected for

17 independent variables; however, it can be accepted for independent variable L, which stated that, ‘knowledge-based economy could be valuable for Qatar to gain competitive advantage’, with a score of 0.026. This score is less than the 0.05 level of significance, as it was part of testing hypothesis 1 from Table 7.82.

Table 7-98: Coefficients For Regression On Vision And Strategy As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.252	.855		1.464	.146
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.045	.117	-.037	-.382	.703
	Your company relies on business from the oil and gas sectors of the economy	-.037	.057	-.057	-.657	.512
	The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	-.011	.179	-.010	-.059	.953

The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	.177	.202	.144	.878	.381
You are motivated to develop yourself in the organisation to become a leader	-.017	.091	-.017	-.187	.852
Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-.178	.108	-.160	-1.651	.101

Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.210	.118	.250	1.780	.078
Your organisation is keen to implement organisational learning at all management levels of the company	-.059	.108	-.072	-.547	.585
A knowledge-based economy could be valuable for Qatar to gain competitive advantage	.354	.156	.247	2.261	.026
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	-.029	.082	-.033	-.357	.721

Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	-0.078	.090	-0.093	-0.872	.385
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-0.028	.109	-0.034	-0.260	.795
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.225	.137	.173	1.639	.104
Qatar cities are designed to support a sustainable economy	-0.062	.075	-0.079	-0.826	.411
The culture in your organisation allows for creating knowledge	-0.053	.119	-0.064	-0.442	.660

Leadership and authority are available to support the scope of the Qatar National Vision 2030	-0.055	.109	-0.060	-0.501	.617
New technology plays a supporting role in the Vision 2030	.176	.132	.140	1.336	.184
Your organisation creates knowledge that is worth capturing and sharing within the economy	.127	.102	.145	1.242	.217

a. Dependent Variable: Vision & Strategy

Vision and strategy affect the rejected subset hypotheses, meaning that they have an influence on the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.10.10 Information and Communication Technology (ICT)

In order to predict the impact of ICT on the three hypotheses, it was presupposed that, as a factor, ICT has no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop a KBE by

2030, and talent management is significantly inadequate to stimulate knowledge-based economy. The ICT factor for a KBE has a model with a correlation value of 0.505, as summarised in Table 7-99. This shows that 50.5% of the variability of the model could be predicted using the variables of this model. The difference between R square and Adj R square (0.255-0.1417) is 0.114. This implies that the 88.6% of the sample used for the survey is a good predictor of the population.

Table 7-99: Model Summary For Information And Communication Technology (ICT) As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505 ^a	.255	.141	.84331

a. Predictors: (Constant); Your organisation creates knowledge that is worth capturing and sharing within the economy; The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030); Your company relies on business from the oil and gas sectors of the economy; You are motivated to develop yourself in the organisation to become a leader; Qatar cities are designed to support a sustainable economy; Your organisation ignores individual knowledge and experience in favour of ICT and systems; The reliance on knowledge could be valuable for Qatar to gain competitive advantage; New technology plays a supporting role in the Vision 2030; Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge; Your organisation provides a mechanism for employees to learn from each other regardless of the management level; Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy; Your organisation is keen to implement organisational learning at all management levels of the company; knowledge-based economy could be valuable for Qatar to gain competitive advantage; Leadership and authority are available to support the scope of the Qatar National Vision 2030; The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves; Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing; The culture in your organisation allows for creating knowledge; The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030).

Using the results presented in Table 7-100, it can be observed that the presupposition for ICT and its impact on the three hypotheses would be rejected for 17 independent variables; however, it can be accepted for independent variable Q, which stated that, 'New technology plays a supporting role in the Vision 2030', with a score of 0.001.

This score is less than the 0.05 level of significance, as it is part of testing hypothesis 1 from Table 7.82.

Table 7-100: Coefficients For Regression On Information And Communication Technology As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.371	.855		1.602	.112
	Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	-.137	.117	-.116	-1.170	.245
	Your company relies on business from the oil and gas sectors of the economy	-.010	.056	-.015	-.174	.862
	The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030)	.107	.177	.094	.603	.548

The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)	.109	.203	.086	.538	.592
You are motivated to develop yourself in the organisation to become a leader	.059	.094	.058	.625	.533
Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.	-.057	.107	-.052	-.533	.595

Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing	.188	.117	.223	1.614	.109
Your organisation is keen to implement organisational learning at all management levels of the company	.050	.107	.061	.469	.640
A knowledge-based economy could be valuable for Qatar to gain competitive advantage	.099	.155	.070	.637	.526
Your organisation ignores individual knowledge and experience in favour of ICT and systems.	-.113	.082	-.127	-1.385	.169

Your organisation provides a mechanism for employees to learn from each other regardless of the management level.	-.013	.089	-.016	-.150	.881
The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves	-.139	.108	-.167	-1.287	.201
The reliance on knowledge could be valuable for Qatar to gain competitive advantage	.056	.137	.043	.406	.686
Qatar cities are designed to support a sustainable economy	.039	.075	.050	.520	.604
The culture in your organisation allows for creating knowledge	-.098	.119	-.119	-.822	.413

Leadership and authority are available to support the scope of the Qatar National Vision 2030	-.091	.108	-.102	-.844	.401
New technology plays a supporting role in the Vision 2030	.450	.131	.362	3.443	.001
Your organisation creates knowledge that is worth capturing and sharing within the economy	.079	.101	.092	.779	.437

a. Dependent Variable: ICT

ICT affects the rejected subset hypotheses, and also has an influence on the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.11 Multiple Regression on Behaviour-Supporting Strategic Objectives

Similar to the previous section, a multiple regression analysis was performed on the listed factors below to examine the extent to which behaviour and skills are identified to support the strategic objectives of organisations as well as assess how the industry

has been dealing with talent management. The key factors used in the multiple regression analysis are:

- a) Leadership/executive team
- b) Middle/ line management
- c) High potentials
- d) Engineers
- e) Graduates
- f) Administrative team

The regression analysis under this section had 17 items, which were directly linked to the research questions and hypotheses in sections 1.7 and 1.8 of the dissertation. Table 7-101 shows the results of the Cronbach's Alpha for the standardised items to be 0.874. These values are very close to 1.0 and prove that they are valid for this regression.

Table 7-101: Reliability Of The Statistics On Multiple Linear Regression

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
.874	.868	17

Using Table 7-80 with the Gamma test results for strategic objectives that support organisational learning, there were 11 dependent variables that were useful to predict the six dependent variables of leadership, middle and line management, locals and their high potential, engineers, graduates, and administrative team.

7.11.1 Leadership/ Executive

In order to predict the impact of leadership or executive teams on the three hypotheses, it was presupposed that, as a factor, leadership and/or executive team has no significant impact on the sub-hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop a KBE by 2030, and talent

management is significantly inadequate to stimulate knowledge-based economy. The decision rule from the regression model is based on the 95% level of confidence where, if the level of significance (p value) is less than 0.05, the hypothesis is accepted (or a failure to reject the hypothesis). Similarly, if the p value is more than 0.05, the hypothesis is rejected.

The model for leadership or executive team has a correlation of 0.572 with the predictors in Table 7-102. This implies that 57.2% of the variability could be predicted using the variables of this model. The difference between R square and Adj R square (0.327-0.185) is 0.142. This implies that the 85.8% of the sample used for the survey is a good predictor of the population.

Table 7-102: Model Summary For Leadership And Executive Team As Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.572 ^a	.327	.185	.97156

a. Predictors: (Constant); Talent management could lead to your organisation achieving the Vision 2030; Talent management is important in having a knowledge-based economy that supports the Qatar National Vision 2030; Qatari organisations do not use talent management in nurturing and developing local talent; Your organisation has a human resource development (HRD) strategy; Qatari organisations do not recognise intellectual capital as a local asset base; Human resource development could be valuable for Qatar to gain competitive advantage; A framework or plan is required to run the business for a Knowledge-Based Economy (KBE); Your organisation has a talent identification programme; Your organisational strategy motivate the workforce for the Vision 2030; Your organisation pick people to develop as future talent for the company; Your organisation has a strategy to develop their talent.

Using the results presented in Table 7-103, it can be observed that the presupposition for the leadership and executive team, with its impact on the three hypotheses, would

be rejected for all 11 independent variables. This is because all p value scores are more than the 0.05 level of significance.

Table 7-103: Coefficients For Regression On Leadership And Executive Team As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.901	1.281		1.484	.144
	Human resource development could be valuable for Qatar to gain competitive advantage	-.136	.254	-.073	-.534	.595
	Qatari organisations do not use talent management in nurturing and developing local talent	-.043	.140	-.043	-.310	.758
	Qatari organisations do not recognise intellectual capital as a local asset base	-.117	.156	-.112	-.749	.457
	Talent management is important in having a knowledge-based economy that supports the Qatar National Vision 2030	.133	.228	.083	.584	.562
	Your organisation has a human resource development (HRD) strategy	.431	.221	.470	1.951	.056
	Your organisation picks people to develop as future talent for the company	.024	.222	.026	.109	.913
	Your organisation has a talent identification programme	-.247	.199	-.271	-1.243	.220
	Your organisation has a strategy to develop their talent	-.210	.242	-.222	-.868	.389
	A framework or plan is required to run the business for a Knowledge-Based Economy (KBE)	.057	.170	.060	.334	.740
	Your organisational strategy motivates the workforce for the Vision 2030	.337	.192	.354	1.757	.085

Talent management could lead to your organisation achieving the Vision 2030	.163	.202	.165	.810	.422
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a. Dependent Variable: To what extent do you think your organisation has identified the behaviour and skills needed to support your strategic objectives for the following:
Leadership / executive team

Identifying the behaviour and skills for leadership and executive team affects the rejected subset hypotheses, thus it could be concluded that they impact the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.11.2 Middle and Line Management

In order to predict the impact of middle and line management behaviour on the three hypotheses, it was presupposed that, as a factor, middle and line management would have no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop a KBE by 2030, and talent management is significantly inadequate to stimulate a knowledge-based economy. The decision rule from the regression model is based on the 95% level of confidence where, if the level of significance (p value) is less than 0.05, the hypothesis is accepted (or the hypothesis fails to be rejected). Similarly, if the p value is more than 0.05, the hypothesis is rejected.

Middle/line management was regressed against the predictors below to provide an R value of 0.654, which is the correlation value. The 65.4% of the variability was used for the model – see Table 7-104. The difference between R square and Adj R square (0.428-0.300) is 0.128. This implies that the 87.2% of the sample used for the survey is a good predictor of the population.

Table 7-104: Model Summary For Middle And Line Management As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.654 ^a	.428	.300	.74032

a. Predictors: (Constant); Talent management could lead to your organisation achieving the Vision 2030; Talent management is important to having a knowledge-based economy that supports Qatar National Vision 2030; Qatari organisations do not use talent management in nurturing and developing local talent; Your organisation has a human resource development (HRD) strategy; Human resource development could be valuable for Qatar to gain competitive advantage; Qatari organisations do not recognise intellectual capital as a local asset base; A framework or plan is required to run the business for a Knowledge-Based Economy (KBE); Your organisation has a talent identification programme; Your organisational strategy motivate the workforce for the Vision 2030; Your organisation pick people to develop as future talent for the company; Your organisation has a strategy to develop their talent.

Using the results presented in Table 7-105, it can be observed that the presupposition for middle and line management, with its impact on the three hypotheses, would be rejected for all 11 independent variables. This was because all p value scores are more than the 0.05 level of significance.

Table 7-105: Coefficients For Regression On Middle And Line Management As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.193	1.003		2.187	.034
	Human resource development could be valuable for Qatar to gain competitive advantage	-.209	.195	-.139	-1.071	.289
	Qatari organisations do not use talent management in nurturing and developing local talent	-.043	.109	-.051	-.391	.697
	Qatari organisations do not recognise intellectual capital as a local asset base	-.126	.129	-.144	-.976	.334
	Talent management is important in having a knowledge- based economy that supports the Qatar National Vision 2030	.154	.178	.118	.865	.391
	Your organisation has a human resource development (HRD) strategy	.232	.169	.308	1.375	.175

Your organisation picks people to develop as future talent for the company	.227	.171	.289	1.324	.192
Your organisation has a talent identification programme	-.231	.153	-.308	-1.510	.137
Your organisation has a strategy to develop their talent	-.168	.186	-.215	-.901	.372
A framework or plan is required to run the business for Knowledge-Based Economy (KBE)	-.048	.132	-.062	-.366	.716
Your organisational strategy motivates the workforce for the Vision 2030	.299	.151	.377	1.980	.053
Talent management could lead to your organisation achieving the Vision 2030	.212	.154	.262	1.377	.175

- a. Dependent Variable: To what extent do you think your organisation has identified the behaviour and skills needed to support your strategic objectives for the following: Middle/line management.

Identifying behaviour and skills for middle and line management affected the rejected subset hypotheses; as a result, it has an influence on the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the actualisation process of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.11.3 Locals with High Potential

As far as the dependent variable of, ‘locals with high potential’ was concerned, it was possible to predict it with regards to the three hypotheses; it was presupposed that, as a factor, ‘locals with high potential’ has no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop to a KBE by 2030, and talent management is significantly inadequate to stimulate a knowledge-based economy. The decision rule from the regression model is based on the 95% level of confidence where, if the level of significance (p value) is less than 0.05, the hypothesis is accepted (or there is a failure to reject the hypothesis). Similarly, if the p value is more than 0.05, the hypothesis is rejected. Therefore, locals with high potential were regressed against the predictors below to provide an R value of 0.641, which is the correlation value. The 64.1% of the variability was used for the model – see Table 7-106. The difference between R square and Adj R square (0.410-0.272) is 0.138. This implies that the 86.2% of the sample used for the survey is a good predictor of the population.

Table 7-106: Model Summary For Locals With High Potential As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.641 ^a	.410	.272	.80140

a. Predictors: (Constant); Talent management could lead to your organisation achieving the Vision 2030; Talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030; Qatari organisations do not use ‘talent management’ in nurturing and developing local talent; Your organisation has a human resource development (HRD) strategy; Human resource development could be valuable for Qatar to gain competitive advantage; Qatari organisations do not recognise intellectual capital as a local asset base; A framework or plan is required to run the business for a Knowledge-Based Economy (KBE); Your organisation has a talent identification programme; Your organisational strategy motivate the workforce for the Vision 2030; Your organisation picks people to develop as future talent for the company; Your organisation has a strategy to develop their talent.

Using the results presented in Table 7-107, it can be observed that the presupposition for locals with high potential, with its impact on the three hypotheses, would be rejected for all 11 independent variables. This is because all p value scores are more than the 0.05 level of significance.

Table 7-107: Coefficients For Regression On Locals With High Potential As A Dependent Variable

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.602	1.109		1.445	.155
Human resource development could be valuable for Qatar to gain competitive advantage	-.216	.219	-.134	-.986	.329
Qatari organisations do not use talent management in nurturing and developing local talent	-.006	.123	-.007	-.052	.959
Qatari organisations do not recognise intellectual capital as a local asset base	-.095	.145	-.104	-.659	.513
Talent management is important in having a knowledge- based economy that supports the Qatar National Vision 2030	.256	.195	.188	1.314	.195

Your organisation has a human resource development (HRD) strategy	.069	.194	.088	.358	.722
Your organisation picks people to develop as future talent for the company	.343	.185	.411	1.851	.070
Your organisation has a talent identification programme	-.041	.172	-.052	-.241	.811
Your organisation has a strategy to develop their talent	-.189	.217	-.227	-.873	.387
A framework or plan is required to run the business for a Knowledge-Based Economy (KBE)	-.106	.155	-.126	-.682	.498
Your organisational strategy motivates the workforce for the Vision 2030	.265	.174	.307	1.524	.134
Talent management could lead to your organisation achieving the Vision 2030	.209	.176	.241	1.190	.240

a. **Dependent Variable:** To what extent do you think your organisation has identified the behaviour and skills needed to support your strategic objectives for the following: High potentials

Identifying behaviour and skills for locals and high potentials affects the rejected subset hypotheses, impacting the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.11.4 Engineers

It was also necessary to predict the impact of engineers' behaviour on the three hypotheses; hence it was presupposed that, as a factor, engineers have no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop a KBE by 2030, and talent management is significantly inadequate to stimulate knowledge-based economy. Using the 0.05 p-value decision rule, it was possible to regress the dependable variable of engineers against the 11 independent variables. The R value was 0.637, which is the correlation value. The 63.7% of the variability was used for the model – see Table 7-108. The difference between R square and Adj R square (0.406-0.254) is 0.152. This implies that the 84.2% of the sample used for the survey is a good predictor of the population.

Table 7-108: Model Summary For Engineers As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.637 ^a	.406	.254	.88984

a. Predictors: (Constant); Talent management could lead to your organisation achieving the Vision 2030; Qatari organisations do not use talent management in nurturing and developing local talent; Talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030; Your organisation has a human resource development (HRD) strategy; Qatari organisations do not recognise intellectual capital as a local asset base; Human resource development could be valuable for Qatar to gain competitive advantage; A framework or plan is required to run the business for a Knowledge-Based Economy (KBE); Your organisation has a talent identification programme; Your organisational strategy motivates the workforce for the Vision 2030; Your organisation pick people to develop as future talent for the company; Your organisation has a strategy to develop their talent.

Using the results presented in Table 7-109, it can be observed that the presupposition for engineers, with its impact on the three hypotheses, would be rejected for all 11 independent variables. This is because all p-value scores are more than the 0.05 level of significance.

Table 7-109: Coefficients For Regression On Engineers As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.145	1.250		.916	.365
	Human resource development could be valuable for Qatar to gain competitive advantage	-.256	.256	-.146	-1.000	.323
	Qatari organisations do not use talent management in nurturing and developing local talent	.094	.144	.094	.656	.515
	Qatari organisations do not recognise intellectual capital as a local asset base	-.041	.164	-.042	-.252	.802
	Talent management is important in having a knowledge- based economy that supports the Qatar National Vision 2030	.138	.221	.094	.626	.535
	Your organisation has a human resource development (HRD) strategy	.112	.226	.129	.494	.624

Your organisation picks people to develop as future talent for the company	.253	.213	.276	1.190	.240
Your organisation has a talent identification programme	-.188	.195	-.214	-.967	.339
Your organisation has a strategy to develop their talent	-.031	.250	-.033	-.123	.903
A framework or plan is required to run the business for a Knowledge-Based Economy (KBE)	-.090	.177	-.101	-.512	.611
Your organisational strategy motivates the workforce for the Vision 2030	.352	.197	.368	1.790	.081
Talent management could lead to your organisation achieving the Vision 2030	.276	.200	.287	1.378	.175

a. Dependent Variable: To what extent do you think your organisation has identified the behaviour and skills needed to support your strategic objectives for the following: Engineers.

Identifying behaviour and skills for engineers affects the rejected subset hypotheses; as a result, it has an influence on the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop to a KBE by 2030;

- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.11.5 Graduates

In order to predict the impact of the behavioural skills of graduates on the three hypotheses, it was presupposed that, as a factor, graduates have no significant impact on the sub hypotheses. This means that they have no impact on the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop to a KBE by 2030, and talent management is significantly inadequate to stimulate a knowledge-based economy. The decision rule from the regression model is based on the 95% level of confidence where, if the level of significance (p value) is less than 0.05, the hypothesis is accepted (or there is a failure to reject the hypothesis). Similarly, if the p value is more than 0.05, the hypothesis is rejected.

The graduates factor was regressed against the predictors below to provide an R value of 0.619, which is the correlation value. The 61.9% of the variability was used for the model – see Table 7-110. The difference between R square and Adj R square (0.383-0.248) is 0.135. This implies that the 86.5% of the sample used for the survey is a good predictor of the population.

Table 7-110: Model Summary For Graduates As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619 ^a	.383	.248	.94022

a. Predictors: (Constant); Talent management could lead to your organisation achieving the Vision 2030; Talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030; Qatari organisations do not use ‘talent management’ in nurturing and developing local talent; Your organisation has a human resource development (HRD) strategy; Human resource development could be valuable for Qatar to gain competitive advantage; Qatari organisations do not recognise intellectual capital as a local asset base; A framework or plan is required to run the business for a Knowledge-Based Economy (KBE); Your organisation has a talent identification programme; Your organisational strategy motivate the workforce for the Vision 2030; Your organisation pick people to develop as future talent for the company; Your organisation has a strategy to develop their talent.

Using the results presented in Table 7-111, it can be observed that the presupposition for graduates, with its impact on the three hypotheses, would be rejected for all 11 independent variables. This is because all p-value scores are more than the 0.05 level of significance.

Table 7-111: Coefficients For Regression On Graduates As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.411	1.273		1.108	.273
	Human resource development could be valuable for Qatar to gain competitive advantage	-.198	.248	-.106	-.797	.429
	Qatari organisations do not use talent management in nurturing and developing local talent	-.125	.139	-.122	-.902	.371
	Qatari organisations do not recognise intellectual capital as a local asset base	.073	.158	.068	.459	.648
	Talent management is important in having a knowledge- based economy that supports the Qatar National Vision 2030	.012	.222	.007	.053	.958
	Your organisation has a human resource development (HRD) strategy	.319	.214	.344	1.489	.143

Your organisation picks people to develop as future talent for the company	-.249	.215	-.259	-1.159	.252
Your organisation has a talent identification programme	.205	.194	.222	1.056	.296
Your organisation has a strategy to develop their talent	-.060	.235	-.062	-.255	.800
A framework or plan is required to run the business for a Knowledge-Based Economy (KBE)	-.016	.166	-.017	-.099	.921
Your organisational strategy motivates the workforce for the Vision 2030	.205	.189	.210	1.086	.282
Talent management could lead to your organisation achieving the Vision 2030	.309	.196	.308	1.576	.121

a. Dependent Variable: To what extent do you think your organisation has identified the behaviour and skills needed to support your strategic objectives for the following:
Graduates

From the above table, graduates affect the rejected subset hypotheses; thus it could be concluded that identifying behaviour and skills for graduates has an influence on:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;

- The current organisational set-up in Qatar is adequate for the economy to develop a KBE by 2030;
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.11.6 Administrative Team

In order to predict the impact of administrative team behaviour on the three hypotheses, it was presupposed that, as a factor, the administrative team has no significant impact on the sub hypotheses, which means that it has no impact on: the process of actualisation of the KBE in Qatar, the current organisational set-up in Qatar that is inadequate for the economy to develop a KBE by 2030, and talent management is significantly inadequate to stimulate knowledge-based economy. A similar decision rule of 0.05 p-value was used, as is the case with the other variables under section 8.11. Therefore, the administrative team was regressed against the predictors below to provide an R value of 0.654, which is the correlation value. The 65.4% of the variability was used for the model – see Table 7-112. The difference between R square and Adj R square (0.572-0.476) is 0.096. This implies that the 90.4% of the sample used for the survey is a good predictor of the population.

Table 7-112: Model Summary For Administrative Team As A Dependant Variable

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.756 ^a	.572	.476	.69228

a. Predictors: (Constant); Talent management could lead to your organisation achieving the Vision 2030; Talent management is important in having a knowledge-based economy that supports the Qatar National Vision 2030; Qatari organisations do not use ‘talent management’ in nurturing and developing local talent; Your organisation has a human resource development (HRD) strategy; Human resource development could be valuable for Qatar to gain competitive advantage; Qatari organisations do not recognise intellectual capital as a local asset base; A framework or plan is required to run the business for a Knowledge-Based Economy (KBE); Your organisation has a talent identification programme; Your organisational strategy motivate the workforce for the Vision 2030; Your organisation picks people to develop as future talent for the company; Your organisation has a strategy to develop their talent.

Using the results presented in Table 7-113, it can be observed that the presupposition for administrative team, with its impact on the three hypotheses, would be rejected for all 11 independent variables. This is because all p-value scores are more than the 0.05 level of significance.

Table 7-113: Coefficients For Regression On Administrative Team As A Dependent Variable

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.459	.941		.488	.628
	Human resource development could be valuable for Qatar to gain competitive advantage	-.110	.183	-.067	-.602	.550
	Qatari organisations do not use talent management in nurturing and developing local talent	.005	.105	.006	.052	.959
	Qatari organisations do not recognise intellectual capital as a local asset base	-.080	.117	-.086	-.690	.494
	Talent management is important in having a knowledge-based economy that supports the Qatar National Vision 2030	.151	.164	.107	.921	.362
	Your organisation has a human resource development (HRD) strategy	.277	.158	.340	1.747	.087

Your organisation picks people to develop as future talent for the company	.063	.159	.074	.393	.696
Your organisation has a talent identification programme	.216	.145	.266	1.492	.142
Your organisation has a strategy to develop their talent	-.258	.173	-.307	-1.490	.143
A framework or plan is required to run the business for a Knowledge-Based Economy (KBE)	.033	.122	.039	.272	.787
Your organisational strategy motivates the workforce for the Vision 2030	.178	.141	.205	1.257	.215
Talent management could lead to your organisation achieving the Vision 2030	.241	.145	.269	1.661	.103

a. Dependent Variable: To what extent do you think your organisation has identified the behaviour and skills needed to support your strategic objectives for the following:
Administrative

According to the result, identifying behaviour and skills for administrative team affects the rejected subset hypotheses, which has an impact on the following:

- The Qatari Vision 2030, as a policy, that has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set-up in Qatar is adequate for the economy to develop a KBE by 2030;

- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

7.12 Summary

This chapter has demonstrated that the creation of a framework for talent management to support the 2030 knowledge-based economic vision for Qatar largely depends on how the research was able to isolate critical elements for three major issues, namely: (i) the isolation of the factors that would facilitate the actualisation of the knowledge-based economy in Qatar at an organisational level; (ii) the ability to assess how industry has been structured so as to examine the way in which the industry could facilitate the process of implementing the knowledge-based economy, and; (iii) the operationalisation of the selection process for competencies and talent at the organisational level to facilitate the deployment of knowledge workers in organisations that make up the economy. This chapter has demonstrated that there is a very high level of awareness in organisations regarding the government policy on the QNV 2030 in terms of its impact on the economy, and the way industries would be impacted. In addition, the chapter has demonstrated that there is a clear level of appreciation of the need for knowledge to be embedded in the economy for it to implement the elements of a KBE. The information obtained from the primary data has shown that there is a high level of appreciation of the concept of talent management even though there has been no clear strategy that organisations can use in order to actualise the QNV 2030 policy at the organisational level.

According to the results obtained from multiple regression, the rejected subset hypotheses affect the main factors to achieve a KBE and the behaviour and skills needed to support organisational strategic objectives; therefore, it could be concluded that:

- The Qatari Vision 2030, as a policy, has a significant impact on the process of actualisation of the KBE in Qatar.
- The current organisational set-up in Qatar is adequate for the economy to develop a KBE by 2030.
- Talent management is significantly adequate to stimulate an economy that is knowledge-based in Qatar.

It could therefore be argued that the chapter has brought out the necessary data linkages that could lead to the development of a clear framework for a knowledge-based economy in Qatar. However, the framework would not be robust if it was to be based solely on quantitative data; there is therefore a need to review the qualitative data from the interview process in Chapter Eight.

8 CHAPTER EIGHT: QUALITATIVE DATA ANALYSIS BASED ON INTERVIEWS

8.1 Introduction

The aim of this chapter is to answer the central research question, which is: what are the current opportunities and challenges faced by Qatari organisations in the development of talent? The strategy for qualitative data collection was based on semi-structured and in-depth interviews. Interview data were analysed using thematic analysis (6.12.1) and ISM. The rationale for using semi-structured interviews was to align the interpretive research philosophy (Saunders et al., 2012) with the qualitative research methodology (Bryman & Gill, 2011). This chapter, therefore, presents the interview analysis as a reflection of the opinions of the 24 interviewees that consented to participate in the research. The main issues examined include the perception of the current economic prospects for Qatar based on the Qatar National Vision (QNV) 2030 and the perception of the strategies in place or available to achieve a knowledge-based economy in the country. Additionally, the interview analysis examines responses with regards to the application of talent management at the national and organisational level as a means to foster learning and promote the actualisation of the QNV 2030 policy, which is based on a knowledge economy. This chapter concludes that the QNV 2030 is a strategic tool aimed at transforming the economy; however, no clear strategy is being deployed to operationalise it at all levels of industry.

This chapter presents data from interviews in the following sections:

- General information about interviewees;
- Current prospective based on the Vision 2030;
- Interviewees' definitions of a knowledge-based economy (KBE);
- Talent management strategies to support knowledge-based economy.

8.2 Section One: Interviewee Details

There were 24 interviewees with wide-ranging industrial experience of approximately 7 to 31 years in Qatar. Additionally, interviewees had widespread official positions in

both the past and the present in state and private sector organisations. The critical factor used to determine the suitability of the interviewees was mainly their participation in strategic decision-making for economic and human development in their organisations. The rationale for insisting on such criteria was to ensure that there was adequacy in terms of the expertise in human development as well as the actualisation of the QNV 2030 policy. Therefore, interviews were targeted based on their high official positions, and included directors, chief executive officers (CEOs) and managers. From the research design perspective as well as the information gathered from the literature review and the survey, it was presumed that interviewees at such high positions in the industry were more likely to have opinions on the Qatar National Vision (QNV 2030) and its challenges. Additionally, they were presumed to be the ideal set of respondents that could provide the necessary primary data that could be useful in determining the way forward to develop a talent management framework that could support the KBE in Qatar. By design, the research was biased regarding the industrial sector that interviewees worked in; the 24 interviewees worked in the government ministries, in the private sector as well as in semi-private organisations, such as the rail industry, Barwa Real Estate Company, Qatar Petroleum, and the Qatar Foundation. Table 8-1 summarises the backgrounds of the interviewees who consented to the publication of generic information gathered. Notice that Table 8-1 does not provide names of interviews because the consent form used in the interview process guaranteed anonymity.

Table 8-1: Backgrounds Of Interviewees

Code	Qualification	Position	Years of Experience	Industry
TM1	MSc	Director		Ministry of Development Planning and Statistics
TM2	MSc	Director		Ministry of Administrative Development
TM3	PhD from Cairo University in Political Science	<u>Chairman</u> of Board		National Human Rights Committee of Qatar Elected as the president of the Arab Commission for

				Human Rights at the League Elected as the chairperson of the Asia Pacific forum
TM4	BSc Industrial Engineering, USA	Chairman of Board	30 Years	Member of Advisory council in Qatar Qatar Petroleum Q-Media Barwa
TM5	PhD	Chairman of Board		Financial and administrative affairs Appointed as the head of reports and analysis in the Supreme Council Projects manager in Qatar Foundation Qatar Nanny Training Academy
TM6	BSc USA	Contracts Director	29	Qatar Petroleum
TM7	BSc Industrial Engineering, USA	Project Manager, Capital Projects	10 Years	Qatar Foundation
TM8	BSc Physics from Qatar university	Program Manager	9 Years	Supreme Council in the Royal Family Qatar Leadership Center
TM9	MSc, UK	Advisor		Delegated to build the Supreme Education Council strategy. This is an assignment by HE the Minister.
TM10	MSc	HR Manger		Qatar Leadership Center
TM11	PhD	Trainer		Ministry of Administrative Development
TM12	MSc	Trainer	20 Years	Ministry of Administrative Development

TM13	BSc, Architecture, USA	CEO Capital Projects, Facilities Management & HSSE	13 Years	Qatar Foundation
TM14	BSc	Director of Planning Department		Ministry of Administrative Development
TM15	PhD	Education and Training Director		Supreme Education Council
TM16	BSc, Economics in London at LSE.	Corporate Strategy	6 Years	Qatar Rail
TM17	BSc	Project Director, Petrochemical Ventures Industry	27 Years	Qatar Petroleum
TM18	BSc, Arabic Literature	Career Development Manager	9 Years	Qatar Rail
TM19	BSc, Electrical & Electronics Engineer, UK	Senior MEP Project Engineer		Qatar Foundation
TM20	BSc	Manager	27 Years	ICT Qatar
TM21	BSc, Business and HR Development	Talent Director		Qatar Foundation
TM22	BSc	General Director	+ 30 years	Ministry of Administrative Development
TM23	BSc Civil Engineering from Scotland	Project Coordinator	7 Years	Qatar Foundation
TM24	MSc Economics, UK	Deputy Director	18 Years	Ministry of Foreign Affairs, then Barwa

Even though there was a need to anonymise the interviewees, there was also a compelling requirement to quote them at particular moments in the data analysis herein; therefore, each interviewee was allocated a code of ‘TM’ – meaning ‘Talent Management’, and a number that differentiated each interviewee. Therefore, the first interviewee was coded TM1 and the last TM24, as shown in Table 8-1. The primary data from the interview process revealed that not all interviewees were abreast of the trends of QNV 2030, talent management, and a KBE in Qatar. Therefore, only those who provided answers have been quoted in all sections of this chapter. If, for instance, an interviewee did not choose to answer a particular question, their response was not deemed null and void; rather their response to questions other than those of the interest to the research were considered. This implies that there are particular sections of the interview data analysis where interviewees may not have been comfortable responding; their wishes were respected in accordance with the consent form they had completed.

8.2.1 Approach to Coding of Interview Data Prior to Analysis

Using the information from Figure 8-1, it was necessary to focus on three major issues for analysis; these were: (i) assessing the current economic prospects based on the Vision 2030; (ii) examining the possibility of achieving a knowledge-based economy; and (iii) critically evaluating the implementation of talent management strategies that support achieving the knowledge-based economic Vision 2030. Theoretically, Figure 8-1 illustrates the coding and themes depicted from in an Nvivo word cloud. Even though Figure 8-1 represents the key themes from the interviewees, it does not necessarily provide the starting point to link the themes from one issue to another to facilitate the critical analysis. For example, issues were centred on the knowledge-based economy, the developmental strategy that the country used, leadership and nepotism as well as the value of experience or education. It was crucial to engage with the interview data with a critical mind to create the links necessary for a unified argument.

Table 8-2: Key Themes From The Interviews

Value of education and working experience
Challenges of getting the right people
Small Qatari population
Fear and nepotism
Specialisation
Role of human resource departments
Strategy
FIFA 2022
Leadership
Vision 2030
Development of Qataris
Knowledge-Based Economy

8.3 Section Two: Current Perception Based On Vision 2030

Interviewees had doubts about the Qatar National Vision 2030 as they realised that it would be challenging achieving the long-term view at the organisational and economic level, as discussed above. However, they had a common view that the Qatar National Vision 2030 was an integration process that required changes to the education system, education similar to that in developed countries, changes in organisational culture and society, awareness, and leadership. These themes are explored below.

8.3.1 Value of Education and Industrial Experience

The issue of education and where it was obtained had a profound influence on where the interviewees finished their careers. On education, TM3 stated that the starting point for any career is education and experience and this could make an interesting starting point for the Vision 2030. He was a political science expert with three degrees; TM3 has fully participated in shaping government policy through deliberations regarding the national establishment for human rights from early 2000 to date. TM3 indicated that the Vision 2030 would only materialise if human rights were embedded in the education and industrial systems – this means that human development is central to the Vision. The weakness in his (TM3) explanation was that

he had no clear path in mind that the Vision 2030 could take, meaning that the operationalisation thereof still proves abstract. TM5 had 26 years of experience in many developmental fields in Qatar. In addition, he was a lecturer in the School of Psychology at Qatar University and that, “*education is part of building the personality*”, and “*experience is based on knowledge*”. TM5 stated that education is available in books, and books are everywhere; universities too are everywhere as well; however, he explained that the methodology, mechanism and ways in which people think differ due to social effects. TM6 stated that education is a foundation for career success, and that without education, “*the country would not progress towards its vision*”. TM4 and TM7 earned their bachelor’s degrees in industrial engineering in the US. TM4 felt that, “*any form of education, in general, was crucial for Qatar because education facilitates the understanding of the work environment*”. TM4, TM7, TM23 believe that only 10% of the knowledge or less is applied due to the Qatari industrial set-up, which does not support learning and practice. TM4, however, observed that a, “*higher degree was needed for one to develop competencies, skills, performance and necessary interaction mechanisms for the industry*”, which leads to better industrial experience. If people are not educated, industrial experience is crucial.

After graduating from the Science Faculty at Qatar University with a physics degree, TM8 worked for the ruling family Supreme Council for X years and then spent another three years at the Qatar Leadership Centre (QLC) for census. He values education because of its ability to deepen understanding of many issues in various fields; therefore, he states that education acts as a minimum benchmark for appointing Qataris to various positions. From this point on, experience cements the knowledge gathered at university. He argued that if an individual has a very high level of experience, they tend to have fewer challenges, are paid well and are given management responsibilities, reinforcing that people not only need connections in industry but also recognition.

TM11 and TM12 taught English as a foreign language at the Ministry of Administrative Development Labour and Social Affairs. The government’s strategy has been to develop, “*Qatari high school graduates in order to help them move into the civil service, as part of a training package of soft skills, computer skills and*

language skills". However, civil service entrants are not well prepared for practical experience, but this is, "*secondary to the government*". According to TM12, what matters most is someone having an, "*educational certificate*".

TM13 worked as the CEO of a health, safety, security and environmental project organisation that managed facilities as well. He provided strategic supervision for the group and allocated responsibilities to many subsections of the group. He argued that he could not have attained a strategic position without his academic qualifications from the University of the State of Kansas in the US where he majored in architecture in 2002. His initial graduate job was with Qatar Petroleum Company from 2002 until 2006 as a structural engineer. Therefore, before he moved to Qatar Foundation as a project engineer, he had over four years of experience, which enabled him to get promoted to technical director after working at the Qatar Foundation for eight years. TM13 opined that while education is an entry point, experience is crucial because it fosters the needed professional development for success in the workplace; he states that both, "*education and experience are vitally important to each other*". TM13 felt that currently, "*Qatar has a massive shortage of nationals with adequate local experience*", mainly because their studies may not have covered the issues where they are allocated. As a result, Qatar, as a nation, needs to, "*continue funding quality education so that locals can attain high quality of education so that they can perform better in the economy*".

TM14 argued in favour of promoting education and experience in administrative jobs, such as human resource departments. He believes that without managing the administration of policies, it can be difficult to influence decision-making in organisations. Even if education gives an individual certain tools, experience in the work place helps people to mature. TM14 does not subscribe to the 'hyped up' need for bachelor's, master's and doctoral degrees in Qatar's working environment. He argues that this, "*approach by policy makers would not develop the country into a knowledge-based economy because workers lack practical experience*" (TM14). He cited an example of the late Steve Jobs of Apple, who achieved a great deal without a formal education. However, this view could be negated by the argument that there are one-off cases where such concepts can apply; in fact, Apple is the prime example of a

business where many highly-educated people drive the practical implementation of business strategies.

In comparison, TM15 stated that a KBE will only be possible if the ministry builds a strategy for the Supreme Education Council (SEC), meaning that the government should assess the performance of the SEC strategy for 2015-2022 before it develops a new system that can initiate additional areas necessary for the growth of Qatar. To this effect, TM15 opined that there are six major issues that impact the evolution of a knowledge-based Qatari economy: *“(i) education and the learning issues of the nation; (ii) the level of qualifications for the workforce; (iii) development of the appropriate infrastructure; (iv) the development of strong institutions that would have clear policies, procedures and structures; (v) developing a high level and quality service from companies for all communities; as well as (vi) instituting measures that can ensure the culture in the state can develop values and customs that support these aspirations”*.

TM17, who has 27 years of experience in the oil and gas sector, agreed with TM6. He stated that both knowledge and experience put individuals on the correct path to development and thus be able to be, *“innovative and creative in your work, and career success will depend on abilities, skills performance and the interaction with the working environment”*. TM19 opined that as an electrical engineer working as a mechanical, electrical and planning engineer, obtaining a degree in electrical and electronic engineering from Liverpool University propelled him to the highest level at the start of his career because, *“it enabled him to enter management”*. He shadowed a project manager to gain experience and learned how disciplined he had to be in the work place. In his view, education and experience are vital to his work, although he felt that, *“work experience was more valuable than mere education”* because without experience, the knowledge acquired from university would become worthless. TM19 further argued that theoretical areas like, *“machines, switch gears and the like”* such that were learnt at university became real in the work place. He highlighted the importance of practice-based learning.

TM20 argued that his work experience in Canada and the Middle East in general has served him well in terms of demonstrating how product and service development can

be managed. He was of the view that the realisation of information and communication technology (ICT) projects was only achievable if ministries were well prepared for e-government. This meant that from the planning to implementation of such programmes, work experience was essential. Without extensive international exposure to ICT projects, it would have been difficult for TM20 to coordinate stakeholders and monitor their performance. However, TM20 did not discount the importance of education and training – just that the type of work required strong work experience because, “*security threats on the internet was a real issue for e-government*”.

TM21 rose to their current position by progressing through elementary and secondary school before joining the banking sector. He then gathered experience through on-the-job training programmes before finally undertaking formal education in a local university. Because of his university qualification in human resource management and banking, TM21 was nominated to head the international unit at the Qatar National Bank. His testimony shows that his experience, knowledge and specialisation were considered vital to his appointment, contrary to the notion of nepotistic-centred appointments in the country. TM21 believes that the environment at his employer has allowed him to develop professionally and be a recognised HR practitioner accredited by the national human resources association in the USA. TM21 spent two or three years at the Qatar Foundation until a new position, named talent development manager arose, which is his current role. He is heavily involved in the management of talent as the organisation restructures with a view to transforming the industry to facilitate a KBE.

TM22 opined that his 30 years of experience in the civil service were made possible by his education in administration. His education and work practice were combined, which meant that he had to undertake the on-the-job training programmes that have been essential to the Qatari economy. He further argued that without formal education in administration, it would have been impossible for him to attain a directorship position; this underscores the importance of education to the economy. TM22 believes that experience should never be a factor at the commencement of a career as long as an individual is highly and professionally qualified. He argued that an, “*educated person has the potential to adapt and be able to work professionally in a team*”;

therefore, education gives people the keys to entry but professional performance can lead to positions of supervision and responsibility.

TM23 had worked in Ministry of Foreign Affairs and then he moved to work for a real-estate company for over 17 years in a management position after studying media and economics. His observation was that his undertaking a master's degree in economics had a tremendous influence on the success of the firm he works for because he added value for the clientele, shareholders and local employees. He opined that his organisation relies heavily on his understanding of Qatar's fiscal and monetary policy as well as the economic trends at local, regional and international levels; hence his education has been critical to his success. He felt that all employees should have an acceptable level of education and then gather adequate experience because the two can complement each other.

From the comments made by interviewees, it could be deduced that education and industrial experience were seen as the key ingredients in creating a knowledgeable worker who would create, among other things, a working environment of an organisation (KBO) that would promote the key elements of the QNV 2030. Therefore, it could be argued that there is a realisation that an educated and experienced knowledge worker (KW) would perform well in a learning organisation (LO) that emphasises the learning element of the business. However, at the same time, TM4, TM7, TM23 believe that only 10% of knowledge or less is applied due to Qatar's industrial set-up, which does not support learning and practice.

8.3.2 Administrative Challenges

Interviewees were asked to share their main challenges at the organisational level, which were categorised as follows:

- Challenge of getting the right people into positions;
- Small Qatari population;
- Nepotism; and
- Perceptions of professions and specialisms.

According to all of the interviewees, Qatar faces severe challenges identifying and appointing the right people to the right positions regardless of the government's immigration policy. This is a result of favouring nepotism over qualifications and

knowledge, and because of nepotism, there has been poor specialisation in positions, especially at the decision-making level. If a KW is available but not used in a LO, because of nepotism, this has negative impact on any KM. TM4 stated that, *“the biggest challenge that we face here in Doha is getting the right people to work for big, challenging, unique projects”*. TM4 and TM7 find one of the biggest challenges to doing business in Qatar is locating expertise; experts are hard to find, rare, and mostly in their twenties. There are other problems that are more common worldwide in any profession, such as technology, but the biggest challenge is getting the right people into the right work.

TM5 argued that it is necessary to develop knowledge that is centred on experiences because managers who are developed from such an approach spend less time analysing data for the sake of it; instead, they are quick to make decisions that can improve the situation. On the contrary, if managers are employed with only academic exposure, they can take too long to evaluate the negative elements prior to making decisions and waste valuable time. However, TM5, TM18 and TM20 qualified the argument by stating that the human development cycle needs to be conducted in two phases – the foundation stage as well as the management level – so that there can be a gradual learning process. It is difficult to institute such an approach for every organisation in Qatar; as a result, people are placed in wrong official positions without the necessary experience, leading to poor performance on many projects in Qatar (ICT, construction, and engineering projects, for example). The other key challenge for talent development in the workplace is related to dishonest competition in organisations; this is when people are placed in various positions but find the working environment to be unsuitable due to personal and professional competition between peers (TM5). The third issue with the industry has been the, *“lack of Qataris and foreigners with competencies necessary for the industry; there are few people who can specialise in [certain] issues. For instance, I managed some social institutions; the people who offer services should be qualified person[s] to solve the problems, such as: people’s problems, kids’ problem and abuse, marital disputes, but the present staff have no experience, they have their own problems, and they are unqualified to solve others’ problems”*. The complaint that there are, *“unqualified people in high positions”* is an understatement, according to TM5. He opined that, *“unqualified people are working at all levels in many institutions such that decision*

makers cannot easily relate with the public, neither can they transform their institutions in line with the government policies”.

TM6 was fired from his job, regardless of his 29 years experience in the field. This action casts doubt on the “*Qatarization*” nationalisation project in that he stated, “*There are many organisations and establishments, where the nomination depends on the personal relationships*”. In these companies, organisations and establishments, personal relationships and other considerations influence the recruitment and nomination process, and TM6 felt that, “*This [is] what has affected on the progress of the country*”. The main challenge mentioned by TM7 was improper placement, which results in job losses, uncertainty regarding remuneration and transfers from place to place. TM7 was forced to unlearn and relearn other skills that related to the oil and gas sector to secure his job; this maximised his character, which he had developed through education, training and experience. Communication, leadership, good relations and people skills have been developed because of the policy to employ people with a particular degree of education and experience.

The challenges differ according to the nature of the job. However, TM8 stated, “*there are three main things, which can make you succeed, work environment, experience, education and your behaviour with people*”. When TM9 and TM15 were delegated by the Minister of Education to create a 2015-2022 strategy for education for a KBE, they faced many challenges. One challenge in the process of building the strategy is that at times you find that, “*some leaders are unaware of the requirements of KBE and how to design a strategy*”; there is a, “*lack of consistency*”; and they can lose focus of the main objectives. The next challenge on the operations level is the “*availability of people at the right time*”. People’s unavailability can have a negative impact on the process of strategy development. Sometimes, certain organisational cultures may not have brainstorming sessions or effective exchanges of information due to centralisation and a lack of transparency, and this can affect people’s performances. TM14 agreed with TM9 that the typical Arab leadership style is, “*My Way or No Way*”, with such leaders’ characteristics having a bearing on their management style. They often view the monitoring of their progress as a criticism of their job.

TM4, TM9 and TM15 mentioned the absence of statistics and research and development departments, resulting in random, impractical decision-making. TM11 and TM12 shared the same view that, “*the communication language (Arabic) creates [an]other barrier, as they are foreigners*”. Continuous organisation restructuring is due to the absence of clear strategies with clear objectives. According to TM11 and TM12 the main challenge is the constant variations in the work that they have to undertake because there is no clear description; each day is different. At times, experience helps; at other times, it is all about the use of knowledge from other units in the department that assumes there can be proper coordination amongst various departments in the ministry. Another serious challenge facing interviewees has been the instability created by the transfer of departments between ministries. This phenomenon causes instability in planning and affects performances because workers postpone planned training programmes; units therefore stagnate in performance terms. Another issue is that workers with a low level of performance competency face challenges in the workplace (TM11,12). TM11 alluded to the issue that there are times when no matter how educated local Qataris might be, a particular bidding process allows international firms to take responsibility for technical and commercial decisions, leaving Qataris with minimal work to do except overseeing that payments have been made. While education is crucial, knowing how contract management is implemented can have a significant impact on the morale of local people who are managing international firms (TM11); this means that a lack of participation leads to many employees (foreigners) leaving the country for the UAE so that they can work in a more diverse employment environment. TM13 declared that there are so many attractive projects in the UAE, and that they are designed to be some of the highest, widest and most iconic buildings in the world to sustain the UAE’s international glamour. His challenge is to find an, “*optimization mechanism*” to prioritise projects to meet the milestones for the FIFA 2022 World Cup.

The main administrative challenges faced by strategic managers such as TM14 and TM15 are leadership – specifically how to lead a group of people in an organisation, whose shifts, level of education and official positions vary from section to section. The biggest challenge of the government’s 2030 Vision is in how to communicate it so that each employee can envision the direction that the country is taking. These two interviewees also said that if strategic managers can lead Qatari talent at all levels, the

benefits would be substantial because locals contribute significantly to the ownership of government projects. Indeed, TM13 has demonstrated that their organisation allocated over 80% of management positions on their projects to locals as a way of developing human capital and talent for Qatar.

However, for TM17, the major challenge faced by newly qualified workers in Qatar is that their expectations of the industry fall short of the reality; for instance, there is a desire to accomplish everything in a very short time. However, as soon as an individual joins the industry, many steps must be taken before they can become fully useful. TM17 gave the oil and gas industry where he worked as an example, explaining that it, “*demands patience and further work-based training*”. He observed that often inexperienced individuals are promoted faster than their colleagues if they are better, “*connected*”, suggesting that nepotism and clan-based thinking still have a major influence on how an individual progresses. TM17 argued that when individuals attain higher positions based on nepotism, it creates significant administrative challenges for the organisation because valuable time is lost fighting to cement the position, as opposed to developing the organisation. TM13 supported TM17’s view in saying that, “*they are managers, but they cannot be managers except for themselves. When we sit with them to verify their problems regarding the mental, ethical and thinking level, we find they do not deserve to be in these leading positions or any of the other good guidance positions*” which causes, “*depression for the employees*”. TM19 echoed the management-related challenges faced in the workplace due to, “*organisational politics and nepotism*” whereby some employees are shielded from criticism or guidance because their non-performance cannot be challenged due to their connections to powerful people.

The challenge that TM20 found was that there are many organisations with managers aged between 24 and 26, making it difficult for them to manage complex industrial-related situations, such as internet security. Furthermore, younger managers have been proven to have minimal competencies in soft skills, people management and investment in the workforce they are responsible for. According to TM20, the first challenge that he faced was that organisations do not nominate the appropriate persons to suitable positions; he argued that, “*Qatar follows very horrible policies for the nomination of workers; so it is a basic problem, as it is a problem related to*

talent. When these inappropriate persons are nominated, this causes the appropriate persons, who must occupy these positions, upset and scared causing many crisis". TM20 believes that this problem is widespread in Qatar, such that there is a need to develop a comprehensive policy on talent management, and a talent evaluation mechanism that could lead to the appointment of the correct talent to the right positions. He stated that, if comparing, *"the education level between Qatar and the other countries, we find that the facilities are better in Qatar and we have other efficient persons in Qatar while they are not developed to meet the economic development agenda"*; however, the wrong talent is placed in key positions, making it difficult for the industry to operate efficiently. Thus, *"A comprehensive talent management mechanism could facilitate correct appointment resulting in creating confidence and trust, as is the case in the United Arab Emirates (UAE)"* (TM20). A lack of trust in the employment system in Qatar has led to poor performances at industry level; in other words, more could be achieved if talent management was correctly implemented.

Furthermore, according to TM22, the biggest challenges faced by administrators in many organisations, including his, were those based on nepotism – a situation that many people in high positions are believed to practice on those in lower positions, resulting in constant communication difficulties between workers and managers (TM22). For instance, if a government official appoints someone based on their high level of competence, once they join teams that are nepotistic it can create crises in boardrooms and lead to a lack of confidence in management decisions, thus damaging performances. As a result, there are challenges in teams within many organisations because of leadership constraints as well as the alignment of decision-making with the government's vision through its ministries.

TM22 did not only look at the challenges per se; he argued that his organisation creates opportunities for training and promotes credibility and transparency in decision-making so that they can remove obstacles for people. This came about when the leadership realised that the workforce was afraid to talk about personal development – a key part of human development. He opined that *"fear"* stifled creativity and innovation, and that when the people are afraid to make mistakes, creativity and innovation are virtually destroyed. Another key observation by TM22

was that leadership at the helm of the organisation is crucial; for instance, “*if the leader does not give room, tranquillity needed to execute the goals*” nothing can be achieved. Organisations, not just the Qatar Foundation, are facing considerable challenges in reshaping human resources. The issue is disguised in the low records of unemployment, otherwise there would be serious problems with local people out of work due to a lack of the right skills for the job market. This justifies investment in talent development in TM21’s organisation, and within the industry at large. This challenge has been made easier in Qatar because people are unified by the same culture, language and religion; therefore, communication is much better (TM21). However, other subjective factors tend to exacerbate the talent development challenges.

Due to these challenges, TM13 further argued that the Qatari job market is limited and may not attract world-class professionals when other developed countries may offer better packages. He argued that many Qataris dream of their country becoming a KBE but that this can only be achieved if all sectors of the economy are working effectively, as in the First World. This implies that the economy would have to work in a slightly different manner than its traditional reliance on hydrocarbons. He placed knowledge and human development as the centrepieces for the evolutionary development of locals.

At the organisation level, TM1 and TM9 realised that it was vital to integrate the national vision and set a target such that by a stipulated time – for example, 2022 – their organisation would have reached a certain stage. The need for the practical integration of national policies in organisational strategies aims to ensure that there can be resources to achieve certain goals, and that performance can be measured, monitored and analysed so that any deviations can be dealt with. TM6 supports the argument that, at the operational level, Qatari managers need to take a proactive stance in directing human development, so that organisations can translate vision into action. TM6 suggested that some organisations are already doing this because they are in strategic positions managing production. However, this argument can also be seen to support the argument that the wrong people could be occupying influential positions that they may not be qualified for.

TM16 worked as a corporate strategist with a Qatar rail organisation at the time of her interview. She opined that education could be the necessary start; however, a combination of education and experience is vital to establish strategic success in an economy. Industries in Qatar, according to TM16, have a network of strategic managers who can facilitate the movement of functional employees from company to company, or country to country, as was the case for her. She explained that her organisation has a set of key performance indicators (KPIs) for their strategic performance, which are relied on when setting future goals. TM16 argued that strategic goals are determined by KPIs; areas that are doing well tend to be promoted – but not as much as those that are underperforming. The same view could be translated into the integration of certain goals into the strategic vision of the country. One of the key functions of KPIs is to identify the right human resources to undertake certain goals to improve performances; this could include benchmarking the performances of other organisations as a way of identifying the right people.

TM20 had a clear dislike for expatriate managers who underperform despite being given substantial salaries that they could never command from their country of origin. He argued that expatriate managers come with credible attributes and qualifications; however, they become non-responsive to the needs of the economy. TM20 explained that most managers spend time complaining about the poor performance of their own Qatari managers, hence they follow suit. In other words, he referred to the mantra that, “*expatriate workers only work as much as their Qatari managers demand*”, meaning that if local strategic managers do not have a strategic goal, managers would have no direction either. Because local Qataris have a reputation for poor performance, expatriate managers also become inefficient in their work, and, in the end, economic performance is impacted.

Another view by TM20 was that while Qataris can be kind, tolerant and gentle in character, they create challenges for those managing them, such that directing their efforts towards the nation’s strategic vision could be tough. He further argued that many organisations managed by local strategic personnel have no deliverables that can be used to measure their success or failure; this could be in financial terms, schedule, revenue etc. For instance, resources were not accounted for at the Qatar National Museum yet the Qatar Museum Manager was not made to account for them

in relation to the museum's activities. This highlights a lack of tangible measures to account for decisions made, resources used and the direction for an organisation; these basic actions are essential for organisations aiming to develop local talent that can operate in a KBE. He cited the United Arab Emirates (UAE) as a block of countries that have worked on training on trust, accountability and the credibility of their nationals once they are assigned to strategically manage national resources. Without these attributes, it is difficult to understand how knowledge becomes a vehicle for transitioning an economy. TM20 implied that organisations are not set up or structured to perform in a dynamic environment nor to have 21st Century standards of management language to transform, change, benchmark and transition in a knowledge-based economy. Without procedures, processes and responsibilities, jobs are not secure because appointing authorities may find it tough to identify the right people to take up positions; everything relies heavily on, "*social language*" or, "*cultural connections*". In such a fluid working environment, the inexperienced are placed in high positions, compounding the constraints associated with poor performance.

QNV 2030 may take off if Qataris can focus on all professions, including trades that are traditionally looked down upon. For instance, there are many fields, such as engineering, medicine and industrial engineering, which are run by expatriate workers mainly because there are no local Qataris to take such positions. This, according to TM15, is dangerous for a nation; the aspirations of its people could be negated by the way it has neglected different professions. Because a country is like a "*buyer*" of trades, the cost to the economy in the long run will be significant because the country is spending significantly more than it should; however, it cannot bargain well because it has no domestic workers to take up such posts. Even if the local approach is to nationalise and place local people in leadership positions, the manner in which this is implemented can be random, asphyxiating the intended purpose for Qatarisation.

TM9 argues that there has been a lack of action regarding the government's implementation of its strategies. He cited the reason that institutions had not been promoting the implementation of strategies since 2011 because they are not set to act but to merely write about the theories of how to create a KBE. Essentially, TM5 stated that much of the government's work has been rhetorical because the economy

is still running on oil and gas money rather than the envisaged KBE. Where the situation can improve is in education, where the curricula, student participation, knowledge and country interests are embedded in the vision, not only as “*reports*” or “*plans*”, but as blueprints of the pathway to generate a KBE. As things stand, there are no competencies available to drive the economy to new levels as the industry does not know how to achieve goals; this is because, “*people have no ability to achieve and their enthusiasm is decreasing*”. Furthermore, TM5 opined that people only adhere to political directives from officials that have no idea how deep a KBE would have to be with regards to the investment in human capital.

TM11, TM12, TM18 and TM21 indicated that there is evidence of low motivation to learn and acquire key skills amongst local Qatari students because they know that, even if they picked up clerical work, their remuneration would be adequate for their life. In industry, TM20 observed that the policy of employing expatriates has its merits and demerits; while the government may hope to facilitate knowledge and expertise transfer from expatriates to the local workforce, there is a real problem of assessing how that transfer might take place. In his own view, TM20 felt that it is normal for expatriates to leave elements of key knowledge so that they can always be valuable in the workplace as opposed to training the local people to take over their posts. This means that there has been no policy in terms of how to make locals benefit from the expertise imported to Qatar. Thus, any benefit takes place in an informal and disorganised manner.

TM18 explained that, even though he had worked for more than three institutions, he never applied for work, mainly because the jobs were readily available through his connections with the leaders of those organisations. Even though there was no formal application, TM18 was attracted to work at Qatar Rail because he felt that it was the largest project in the world at the time and that it was being aligned for the Vision 2030 infrastructure. He observed that the department relied heavily on collaborative working and teamwork, meaning that emphasis was on experience as opposed to education alone. Based on the administrative challenges highlighted above, it can be argued that the tradition of organisation culture being based on nepotism has been the main factor holding Qatar back from economic development that could be directly linked to the transition to a KBE.

8.3.3 Economic Challenges

The overarching arguments from the interviewees with regards to the actualisation of the QNV 2030 and the KBE has been the potential for immediate economic benefit. For instance, for many organisations in Qatar, a KBE will be crucial if it can boost their profitability and resilience. For example, oil price fluctuations on the international market in the last two years have triggered major changes to management structures within companies where the drive has been to cut costs and maintain profitability. Projects have been cancelled and the issue of human capital development and employability becomes secondary so that it can be avoided until the economic situation improves with the increase in oil prices.

TM4 found the oil crisis in 2014 as an, *“opportunity to be efficient”*. He argues, *“cutting down the staff and projects that have no economical and development impact on the economy are steps should have happened earlier to avoid economic deficit due to [a] lower oil price”*. TM5’s company had the same strategy as TM4’s organisation in that they, *“started integrating the projects because of retrench in budget, they felt that they should reduce the duality, the repetition and the expenses, they became attentive”*. TM6 and TM17 argued that there are many projects in Qatar, which were suspended after the drop in the oil price 2014, which may affect the living standards of Qataris. TM7 has concerns about the next generation when the natural resources (oil and gas) are depleted. He said that, *“We are required to secure their lives and try to enhance their coming life styles by developing it for them and enhancing the economy’s shape and style for improving our future and the future of our country and our children”*. Another key observation that TM18 made was that policies were heavily reliant on Qatar’s economic fortunes in oil and gas, meaning that developing the infrastructure for the economy was an offshoot of the proceeds from the oil and gas industry, such that profitability and liquidity was a given (TM18).

8.3.4 Educational Challenges

There was an opinion that education did not prepare graduates for industry. For example, it was argued that the main challenges faced in the organisation with regards

to talent management and human development are twofold: technical skilling and soft skilling of employees (TM9, TM15 and TM18). It was observed that universities or colleges do not educate students in accordance with company-specific or required skill sets; rather they equip them with generic skills that can be moulded into specific areas of specialisation. The process of reshaping employees into desired specialisations is the major challenge identified by several interviewees (TM9, TM15, TM18, TM21).

According to TM5, the challenge with education systems has been the way it can be applied from theories to specifics. He stated that Qatari learners read the same books as those in the US, UK, Canada and the Western World in general; however, the methodology to thinking how knowledge is used varies from country to country and that is what makes a difference to an economy. This implies that the factors necessary for a country to develop and become a knowledge-based economy are dictated by many factors, including education. However, Qatar would have to develop a suitable model that can align with its community in terms of the cultural and human development factors that could emanate.

TM12 debated that, in countries like the UK, undergraduate and postgraduate degrees are essential for those working in 'academia' rather than industry. This means that he was not sure of the importance of acquiring a chain of degrees for industry. In the Middle East, the value of a certificate is given much greater prominence than in the West. TM12 argued that the main two obstacles to the Qatar National Vision 2030 are "*cultural and educational factors*". He supported his view using the example of Poland. In the early 1990s, Poland invested heavily in its educational system, changing it from the Russian to the English and German styles because they were competing with the West and trying to escape from the East. Within a short period of time, they had met their targets. Qatar too has spent substantial amounts of money on education but has failed to its meet targets. They tried to copy the American and British systems, which employ completely different education philosophies, and in doing so neglected elements of the fundamental Qatari culture.

According to TM12, as Qatar enforces rudimentary education and training for all Qataris, some are paying extra for postgraduate education for the prestige it brings but

do not, “*have the idea of constant professional development*”. TM5 and TM15 argued that some firms had failed to come up with their own strategies that comply with Qatar’s 2011-2016 strategy, which has a clear objective for each sector, including education, the environment and healthcare. Both the interviewees supported their arguments using examples from Qatar, which has spent millions of dollars on education and healthcare projects. However, Qatari students score the lowest on science and math compared to their global peers; this puts Qatar in a doubtful position in achieving its ambitious sustainable economy. TM13 asserted that, “*education is the basis*” for Qataris’ reluctance to take up leading positions, due to their lack of responsibility. TM15 argued that, “*We need to intervene to inject the educational system with vision, strategy, skills, technical knowledge, and energy, or the status quo and consequence of failure will impact the progress of the knowledge-based economy era*”,. As a result, the Ministry of Education and the labour market need to integrate to bridge the gap between the outcomes of the education system and the country’s economic development needs by setting out a new strategy and criteria for innovative and creative talented youth to take the lead.

8.3.5 Influence of Local Culture and Leadership on KBE

The way interviewees responded showed that there were cultural barriers that inhibit the operationalisation of the Vision 2030, as envisioned by His Highness Sheikh Tamim bin Hamad Al Thani, the Emir of Qatar. As TM8, who worked for the Qatar leadership centre, noticed, “*employee leadership style has hardly changed after extensive leadership courses in Oxford and Harvard universities due to Qataris’ bonds to their culture and traditions*”. He further argued that the status quo has been a result of their symmetric tests before and after training. TM9, TM15 and TM22 argued that “*there are uncertainties*” and “*fear*” to take decisions, as mistakes are forbidden if individuals want to protect their positions. This prevents employees from being innovative and creative, resulting in promoting routine clerical work. KW – meaning knowledge workers – are inhibited from performing or using their knowledge in their organisation, potentially resulting in the poor performance of the organisation. Therefore, societal culture can be seen to impact creativity in society.

Regarding Qatar's youth, who form the majority of the country's population and aspire to leadership positions, TM20 and TM21 cited that, "*they are disinterested to be part of the development, to be dependent on the expatriate; to enjoy their luxury life style and acquire high positions through their connection*". Furthermore, TM9 argued that, at the moment, Qatar has not made significant improvements in the drive to develop a KBE mainly because of the inherent traits of the leadership in many influential organisations. Basically, the leadership of many organisations based on the Arabian Peninsula is culturally biased towards centralism whereby delegation and teamwork are stifled. These characteristics are crucial to a forward-looking organisation that can promote human capital development and knowledge sharing; however, such traits are not natural to the leaders of Qatari organisations (TM9).

The second factor hampering the development of a KBE, according to TM9 and TM15, has been the management of information within organisations. Leaders lack transparency because they are used to implementing strong information-control mechanisms, such as high security. TM9 and TM15 opined that, "*the lack of transparency or information exchange in any organisation will affect people's performance, work, sense of confidence and motivation to work. And it follows that whenever a person wants a piece of information, they will get into this bureaucratic system*". The structure of organisations stifles learning and knowledge sharing; these factors damage the opportunities for organisations and eventually the economy of Qatar (TM9 and TM15).

The current challenges may not be surmountable as long as Qatar continues to heavily rely on expatriate workforce; Qatar cannot dispense with non-Qatari workers and this makes it difficult to implement the Vision because the strategy does not explain or set out a method for dealing with this situation (TM15). Secondly, there is no strategy in place regarding the optimisation of the limited human resource base amongst local Qataris in terms of "*instructing, training and development*". There are also no efforts in place to establish "*specialised skill sets*" because tertiary education has not been informed by or structured based on the KBE vision (TM15). TM20 opined that a KBE forces Qataris to assume responsibility from education institutions so that they can take up sensitive subject matter and help to find solutions for developing the economy; the pace of change is currently not as good as could be hoped.

According to TM9, TM14 and TM15, the biggest challenge faced by Qatari industry is executing official policies from the government. Even if the government provides a detailed plan for companies' managers, they do not react positively to being continually monitoring and evaluated by ministry officers. Therefore, it shows high resistance to change and adherences to the old culture of working. This means that there is a considerable challenge in terms of culture when it comes to embracing and operationalising the 2030 Vision. TM7 explains some of the obstacles to achieving the QNV 2030 at the organisational level: *“people in high positions do not understand the Vision 2030 and their scope of work is to have strategy for the next era of sustainable economy that is knowledge-based”*. At the institutional level, there is a culture of failing to report issues, such as non-performance or mediocre decision-making, because of *“fear”* (TM22). Another issue is that the culture in organisations is one that does not celebrate *“competencies”* and *“expertise”* amongst team members – this is the Qatari community culture (TM22). Currently, failure to follow up in terms of performance has led to poor performances at many organisations. This is not surprising because goals are not unified by government departments so everyone is pushing to be better than everyone else (TM22; TM16). TM12 finds that *“boys have a very low educational standard”* because their interest is to sit in *“the desert with their camels and their friends around a fire”*, and they are getting good positions and salaries with a luxurious lifestyle by being connected to the right people rather than through hard work.

8.3.6 Implementation of Vision 2030

TM13 says, *“Qatar is seeking to be at the grade of the advanced countries in different fields, but the challenge is that the community must progress as a whole to a certain limit”*. According to TM20, the implementation of Vision 2030 rests on how Qataris upgrade their thinking to that seen in advanced countries around the world, and reject the argument that a basic level of education, such as a secondary school qualification, suffices. The second issue has to address performance in the workplace and in various organisations; at the moment, many Qataris are shielded by the *“localisations”* or the *“Qatarisation”* policy, which, according to TM15, can be attributed to the overemployment of local people in organisations without due reference to their performances. To this effect, TM20 felt that there are many professionals who are not

performing, with some in respectable positions but without the necessary qualifications.

TM3 opined that the implementation of the Vision 2030 is non-existent in his organisation because no visible strategy has been put in place to follow since the QNV was established in 2008. However, he felt that, even if five years had passed since the QNV had been established (at the time of the interview), there was no need to panic because there was a lot of time before 2030 (TM3). This argument demonstrated how detached some respondents were from the reality of the issue at hand; economies are developed in generations, therefore, to argue that 2030 is still far away suggests a failure to understand the necessity of investment in a youthful and productive generation. TM3 explained that there is currently a lack of innovation in the economy on many fronts; therefore, an analysis of cause and effect is necessary.

According to TM4, one of the major factors causing difficulties in the implementation of the Vision 2030 has been the lack of awareness in how to deal with the Vision because the wrong people have been leading key positions in organisations. Furthermore, TM2 argued that the human capital pillar for the QNV 2030 should be targeted seriously because developed human capital has the potential to impact other pillars. This argument is demonstrated by TM2, who did not clearly understand how the QNV 2030 impacts the integral part of the business and the community. This lack of implementation strategy is the single most cited factor amongst interviewees (TM6, TM7).

However, TM7 argued that the direction of travel for QNV 2030 has been misdirected towards the workforce; instead, it should be directed at the primary school children so that they can grow up in an environment where understand that they are likely to make a significant impact in the future. He further argued that, by 2030, primary school children will be 18 years of age and will face similar challenges if the Vision is not directed at them (TM7). A counter argument can be made to the reasoning by TM7 whereby if the current crop of workers is allowed to maintain the status quo, the trend will continue, such that the younger generation will inherit a dysfunctional economy whose dependence on hydrocarbons will probably be worse. Furthermore, the sensitivity of such an economy to the market trends of hydrocarbons could be

even worse. Therefore, efforts to reshape the economy towards a KBE through the QNV 2030 must be sustained.

Based on the discussions in previous sections, it can be argued that organisational performances are under threat if no corrective actions are taken to remedy the previous challenges mentioned by the interviewees. Hence, the necessity of this research to develop a framework that develops Qatari talent for an economy that is knowledge-based, and thus to bridge the gap between the ambitious leadership plan and current organisational performance in the country.

8.4 Section Three: Achieving a Knowledge-Based Economy

This section of the interview analysis examines the responses from interviewees concerning their definitions and views of the knowledge-based economy (KBE) and the policies from the government with regards to the transformation of the carbon-centric economy to a knowledge-base.

8.4.1 Local Qataris and the National View of a Knowledge-based Economy

The interviewees' understanding of the meaning of the term knowledge-based economy differed considerably. Those at a strategic level tended to have a deeper understanding of the importance of developing nationals to take the lead in this transition, as they are in a position to design strategies with professionals to align their paths with a sustainable economy. However, some chief executives were not aware of the QNV 2030 and KBE aspirations, meaning that their organisations were not involved or working towards such development targets.

TM4, TM9 and TM15 indicated that the establishment and success of a knowledge-based economy is largely dependent on the availability of talent in the economy as well as the availability of statistical information to educate people about it as well as the necessary logistic support. According to TM13 and TM14, this demonstrates that achieving the Vision 2030 requires understanding of the objective as well as knowledge of, and engagement with, the necessary steps reach it. Many Qataris do not understand the Vision 2030 and its four pillars; hence they are not aware of the drive to transform the economy.

TM14 argued that there is a strong link between education levels, the knowledge-based economy and human development. He suggested that human development creates a fundamental pillar upon which a knowledge-based economy can be realised. TM14 observed that a KBE could be fostered in Qatar if there is a deliberate policy in place to invest in human development capabilities that is centred on Qataris and thus prepares them for, and attract them to, more strategic business roles suited to a KBE. The reality, at the moment, indicates that there is a general awareness of the national development plans; this makes it possible for companies to draw up human resource strategies, raise general awareness of the Vision and link people's culture with efforts to build capabilities for locals (TM14). There are very few signs at the industry level that suggest that suitable policies have been embedded in the education process, or in encouraging strategic decision-making in human development (TM14). Not all interviewees were aware of the push for a KBE; for instance, TM6 opined that a "*KBE is largely centred on knowledge, evaluation and smart decision making*". He was not aware of the government's effort to transform the economy. Others perceived a KBE as a focus on creating knowledge and a creative economy (TM5).

According to TM7, Qatari nationals need to realise that their country is undergoing a considerable transition towards a reliance on a knowledge-based economy; if the current government does not respond to depleting natural resources, it will leave future generations with insurmountable economic challenges. The challenge for a KBE in Qatar, according to TM7, is the ability to translate the vision into education and training for the younger generation so that they can visualise what the government is doing, otherwise they will see no value in it. To resolve this challenge, TM13 opined that there should be deliberate investment in financial management and environmental protection so that children can be taught, among other things, the Islamic conservative way of living while upholding traditions, ethics and habits that reflect a strong culture. In other words, TM6 stated that, "*currently there are gaps between government vision and how it can be realised by younger generations*", essentially jeopardising the success of a KBE development in Qatar. There are no home-grown ideas that can be used to transform the economy into a KBE unless there is substantial investment in early childhood learning about the KBE. TM6 confirmed that the government has a system in place, but that there is no clear plan to create a

KBE in Qatar. TM22 also felt that a, “*KBE in Qatar can only be realised if the community is taught, trained and developed so that they can be made knowledgeable about [the prospect]*”. He argued that if such an approach is adopted, there may be an increase in knowledge transfer amongst Qataris regardless of their location in the local or international community (TM22). The main thrust of this argument is that without community, civil society, and general citizen involvement, Qatar will not realise its aspiration to develop a knowledge-based economy.

TM21 amplified the issue of “*community participation*” by giving the examples of Singapore, Malaysia and Japan, whose economies are heavily reliant on human capital, as opposed to natural resources. The Qatar Foundation (QF) was established on the premise that the country had human capabilities granted to its people from Allah (God), as TM21 explained. These human minds form the strongest asset upon which a KBE could be established; however, although this argument may be, it was not matched with examples of the utilisation of human capital to develop the economy. Rather, the examples point to a reliance on natural resources and a high level of comfort by locals. TM11 felt that Qatar has failed in its development strategy so far in not rationalising and identifying important issues for the nation to focus on and creating a schedule to deliver on those matters. He argued that currently there are no means to unify such strategies because there are too many entities and organisations that aim to achieve fragmented goals as far as a KBE is concerned (TM11).

“*Currently, the KBE strategy for Qatar is unclear*”, argued TM15. This implies that the strategy could be present in organisations but that it has not received sufficient national “*conviction*” for its inclusion in individual company objectives. Another issue TM15 referred to was the lack of integration of human development in companies because their organisation structure does not conform to the KBE strategy. TM15 argued that with the right strategy, organisations can conform, and that, “*the right people could be availed to lead the evolutionary development into a KBE*”. TM15 also stated that there are currently lapses in these three major areas. According to TM17, there is a lack of direction in terms of optimising the resources available to organisations so that they can develop local people to achieve greater success.

One major factor, according to TM18, has been the relatively luxurious lifestyles experienced by local people, which stifle their desire to work particularly hard. Few organisations have tried to diversify from their reliance on the oil and gas sector, chiefly because the government envisaged diversifying the production system in order to cope with low market prices (TM18) rather than changing the entire economy to make the oil price less important. By contrast, TM6 and TM9 were of the view that leadership skills amongst local Qataris form a major barrier for the implementation of the KBE. Naturally, every local person wishes to secure a strategic position in an organisation, even if they do not have enough experience for such a role. This issue, according to TM9, is cultural, and starts in homes and communities, where people set out to be natural leaders from birth; however, an economy cannot be run in that way. He further argued that leadership development in Qatari communities could make a significant contribution to the KBE objective if mentorships are promoted (TM9). By contrast, TM14 suggested that there are situations where local people are not interested in leadership, especially if they feel unqualified to run an organisation. TM14 also stated that, although many local people desire to be in strategic management positions, they tend to be reluctant to take up such roles unless they are highly qualified. Therefore, the level of education has a significant influence on how leadership positions are contested.

The concept of training and mentoring local Qataris started as far back as 1964, argued TM22; therefore, the issue is finding how local Qataris have developed thus far based on the government's policies over the years. Qataris tend to use their local language in the workplace regardless of the number of expatriate workers around (TM12). This issue stifles knowledge transfer and training programmes because for people who cannot speak the local language, there is less involvement in training and human capital development (TM12). However, beyond language, there some conservative cultural elements of the workers which are essential for harmony in the workplace; religion is one such factor because it acts as a unifier and can promote hard work (TM12).

According to TM13, the national view on implementing a KBE is impacted by, "*the drive to localise the labour market at all costs- meaning that organisations have to justify their positions if they are to employ a non-Qatari*". While this issue is

necessary, it can work against the desired progress because the threshold for engaging a local person can be lowered further as a way of ensuring that organisations comply with government policy (TM13). Local talent and human resource development through education and training was a key factor in the development of the national development strategy (TM14). If there was no deliberate policy for locals, it could mean that talent would be wasted (TM11). In addition, TM24 referred to a KBE as a “*fad or fashion*”, which would fade with time, but believed that cognitive creativeness would remain in Qatar, albeit known by another ‘fancy’ name.

8.5 Section Four: Talent Management Strategies That Support A Knowledge-based Economy

All of the interviewees shared a common view when asked about the availability of human development strategies for their organisation; none of them, despite coming from different organisations, were aware of any plans or frameworks to develop employees, although TM9 and TM15 stated that they were working on this area. This indicates a gap between the Vision 2030 and economic development, whereby organisations continue to ignore the most fundamental driver for the Qatar National Vision 2030, which is national development. The conferences held by the Prime Minister, the new human resource laws introduced in 2016, the reports conducted by the Ministry of Planning and Statistics are all valueless if nationals cannot access the benefits of the development promises. TM5 and TM6 view these official efforts as propaganda to reassure people of changes that will never happen.

The nature of Qatari talent is varied; some individuals have attained high levels of education and training while others have not. However, the policies of a KBE require, among other needs, particular workforce attributes such that they can drive the economy forward based on their knowledge, initiative and creativity. TM7 feels that these attributes are available at most organisations but are isolated in nature. The concept of developing talent, therefore, needs to concentrate on developing young people in schools (TM7). That said, organisations have been making efforts to demonstrate that they have been engaged in developing comprehensive plans to develop their workers (TM7). Even with the best strategies, many organisations have

no “*follow-up*” systems to see if they are developing their people so they mature into key leaders for the companies in which they work (TM14).

TM9 stated that, as the economy relies heavily on an imported workforce, local people realise that the work environment has changed significantly. However, the current education system and community culture may not promote local people to take up leadership positions. Nevertheless, with the QNV 2030, the promotion of local people is paramount (TM9). For this reason, the government’s policy has been to counterbalance the influence of expatriates by ensuring that local labour is given priority, hence the over-reliance on localisation, or “*Qatarisation*” as the means through which local talent is developed (TM20, TM17, TM13). Through the localisation policy, local Qataris have been given positions in nearly all businesses – a move that has not been clearly evaluated in terms of its impact on economic performance (TM14).

TM3 stated that it can be difficult to generalise how local people perform; whilst, there are some who work very hard, others may not be seen to work particularly hard. The major indicator of how locals perform has been the influence of the government on social security whereby an organisation cannot easily fire a person without due diligence (TM3); this creates an environment where non-performance can be difficult to eradicate. TM16 argued that there is no evidence that the strategy to manage talent in QNV 2030 has a clear direction that could be used as a tool for harnessing national commitment, enthusiasm and pride for the goals set out by the government (TM1).

8.6 Section Five: Respondent Recommendations

In the survey, Question 50 asked: ‘What could be your personal recommendation towards Qatari authorities on the process of implementing the QNV 2030 in a knowledge-based economy?’ The rationale for this question was to extract suggestions from respondents, and out of the 284 respondents, 143 answered the question while 141 skipped it. Respondents gave the following comments:

- Organisations must choose the right people for the right positions;
- Organisations need to invest heavily in Qatari nationals;
- Government companies must ensure more accountability;

- They should be made to have clear goals regarding what people have to achieve;
- Develop clear plans;
- Identify the right people who should be held accountable for the implementation of the Vision;
- Establish clear consequences for failure on all developmental projects;
- Improve the decision-making processes to cut down on red tape and bureaucracy;
- Reduce inefficiencies that prevent Qatar from achieving its goals;
- Offer greater incentives and reasons for expatriates to remain in the country permanently;
- Work towards sustainable growth, invest in renewable energy research and development, and work towards a transition from hydrocarbons to more sustainable energy sources;
- Institute mechanisms to follow up and evaluate what has been done so far in order to lead to better a performance;
- Keep international knowledge and employment in support for Qatari citizens so that they can learn, and not just Qatarise vacant positions;
- Make the Vision more visible; give opportunities to expatriate workers with sufficient training;
- Understand the meaning of a KBE and know what needs to be done to make it happen in a high-earning society;
- Invest in leadership skills;
- Share the Vision with students at a young age and discuss it at all levels of education in order to create a sense of belonging and patriotism amongst the future employees of Qatar so that it becomes more than just a title and slogan;
- Develop discussions around the QNV 2030 at grass-roots levels, otherwise the current educational system, coupled with a materialist and entitled society, will not breed a future generation that can maintain this objective;
- Increase job security for expatriate workers in both the private and public sectors to increase their interest in investing in the 2030 Vision regardless of the financial incentives;

- Undertake a filtration process for people working in Doha through the Ministry of Labour to make sure that people being paid to carry out tasks are not only involved for personal financial gain;
- Allow expatriates to contribute more alongside their Qatari peers and work together, as opposed to excluding them from decision-making processes;
- Invest more in people;
- Increase awareness of how each person's work can further the QNV 2030;
- Provide more hands-on management and oversee departmental performances regularly by checking on employees, and not just managers;
 - Encourage children at a young age to be part of the knowledge-based economy and have a clear goal for the future;
 - Encourage students to pursue all fields of study, like art, science, physiology, psychology, medicine, engineering, etc.;
- Put the right people in the right positions based on their qualifications, experiences and behaviour;
- Build new infrastructure and repair existing infrastructure where necessary;
- Hold people accountable;
- Ensure fairness and transparency;
- Cut down on the hype associated with QNV 2030 and work on the substance;
- Implement Qatarisation but balanced against job candidates' competencies;
- Groom locals by taking away their benefits and incentivising them to attend training events and share their knowledge;
 - Deny locals from securing high positions simply because they have a high degree; innovation and change require real-life experience rather than entitlement;
- Develop Qatari talent:
 - Put good incentives in place to motivate and encourage talented people to take on leadership and management roles;
 - Use knowledge management tools to transfer knowledge from expatriates to Qataris;
 - Run extensive training and workshops inside and outside the country;
- Develop a sense of commitment
- Develop people, in the form of human resources;

- Improve digital Arabic resources;
- Link employees' performance appraisals to organisations' strategic objectives, which should be in line with Qatar National Vision 2030;
- The government must develop a programme where future leaders can tackle changes and challenges using the younger generation. The current generation of local people are afraid of decision-making and responsibilities;
- Offer equal opportunities amongst local and expatriate workers of any religion to encourage knowledge sharing, loyalty and trust;
- Develop data sharing and transparency;
- Develop an execution plan for existing frameworks that are professional, attractive and focussed;
- Attract the best foreign nationals so that there is the best transfer of knowledge; change labour law regarding exit permits for foreign nations in order to attract the best foreign nationals.

8.7 Summary

There is an indication that, for Qatar to develop its National Vision 2030, it needs to ensure that practical education is central to what it does and that the country's companies and organisations can put in place deliberate strategies aimed at developing talent (TM13). Many institutions show no signs that they are managing their talent (TM16), although some have been implementing the localisation policy, which presents many difficulties (TM22, TM7, TM14). Human resource departments have been mainly reactive to the current policies, making their efforts visible to government authorities rather than pursuing change or innovation themselves (TM17). The application of 'localisation' or 'Qatarisation' has been seen as a subjective strategy that has side-lined highly educated people for high positions and enabled unqualified candidates to secure better positions on the back of their social and cultural networks, and nepotism. TM18 indicated that there are low levels of enthusiasm from locals to improve their skills; the main reason for this could be the lack of education necessary to work in a KBE while the other is the relative comfort made possible by the Qatarisation policy, which rewards people for their national status even if their performance is not well monitored and assessed (TM19, TM23).

Considering that there have been useful policies in place, such as the QNV 2030, it could therefore be argued that it is the responsibility of both the public and private sectors to strategise how the policy could be implemented (TM19).

9 CHAPTER NINE: RESULTS FROM THE INTERPRETIVE STRUCTURAL MODELLING

9.1 Introduction to Interpretive Structural Modelling in Context

According to Thakkar et al. (2008), interpretive structural modelling (ISM) is a qualitative modelling tool that is used to assess relativity in terms of the influence that factors may have on each other. This could mean assessing interrelationships between factors that form part of the issue(s) under investigation (Thakkar et al., 2008). Thakkar et al. also states that ISM allows for a detailed examination and comparative analysis of the factors in order to understand how they influence each other. The overall aim of ISM is to measure the performance and/or influence of the factors on each other; this is similar to what a cause and effect diagram analysis could achieve (Thakkar et al., 2006). It does this by facilitating a meticulous qualitative process of identifying and summarising relationships amongst specific items that are crucial to the definition of an issue or problem. By so doing, IMS provides a *modus operandi* enabling individuals to examine and unpack an issue by systematically incorporating the expert's subjective judgements and knowledge (Thakkar et al., 2006).

Azevedo, Carvalho and Cruz-Machado, (2013) demonstrated that apart, from the process of identifying and summarising specific variables, ISM could generate some clear causal relationships that could be useful in measuring the performance of a product or process under investigation. Causal relationships are necessary for the appraisal and analysis of factors under consideration (Azevedo et al., 2013). Modelling events using the qualitative approach has been achieved using various conventional techniques, such as the Delphi technique; however, conventional techniques can be overwhelmed by the complexity of the problems to model (Debnath & Shankar, 2012). The advantage of ISM is that it combines three modelling languages, namely, “*words, digraphs and discrete mathematics*” (Debnath & Shankar, 2012, p.390). Unlike other modelling techniques, ISM incorporates elements that are measured using ordinal scales that are useful in weighting the qualitative factors that are used in the model (Debnath & Shankar, 2012). In addition, ISM allows for changes of judgement based on evidence; the level of computational requirements is

also minimal for objectivity about the factors under consideration (Thakkar et al., 2006).

This chapter is structured to address the following:

- Application of interpretative structure modelling;
- Implementation of interpretive structural modelling:
 - Step 1: Developing a structural self-interaction matrix (SSIM) using expert opinions;
 - Step 2: Converting the SSIM into an initial reachability matrix;
 - Step 3: Developing the final reachability matrix;
 - Step 4: Level partitioning;
 - Step 5: Classifying the factors;
 - Step 6: ISM Diagram.

9.2 Application Of Interpretive Structural Modelling In Industry

According to Talib, Rahman and Qureshi, (2011), ISM facilitates the assessment of mutual influences between variables. They argued that ISM is an interactive learning process that could shape the order and direction of the complex relationships between variables that make up a system (Talib et al., 2011). For maximum benefit from ISM, the process has to be conducted in an iterative way so that it can create a cycle of continuous improvement and direction in the way variables are assessed against each other (Talib et al., 2011). There are examples of industry application for ISM; for instance, Pfohl, Gallus and Thomas, (2011) applied the concept of ISM when they modelled the risks associated with the supply chain between industry and trade companies in Germany. They were able to develop a link as well as determine the drivers for risk within the supply chain using ISM, which they later modelled using arithmetical modelling. Tripathy, Sahu and Ray (2013) used the ISM system to model the performance of research and development on the manufacturing industry in India. They based their work on the critical review of literature on research and development and how this has impacted local manufacturing firms and gathered various factors from the literature to assess the mutual impact of the identified variables (Tripathy et al., 2013).

The application of ISM is based on the contextual setting that Singh et al. (2003) outlined. The contextual relationship is chosen so that a single variable could be linked to others, resulting in a hierarchy of variables that are viewed as interlinked (Singh et al., 2003). If the application of ISM is based on the literature review alone, it is imperative that it focuses on key issues that are set to define the critical review or purpose of the argument (Sahnet et al., 2010). In the event that primary information is used as the source for ISM, it is possible to collect mean scores and standard deviation data so that the variables could be ranked in a more objective way (Mahajan, Agrawal, Sharma & Nangia, 2014). Creating a more objective ranking for a complex socioeconomic issue creates a firm foundation for expert judgement before the variables can be assessed against each other (Mahajan et al., 2014). If the focus of the research is to review a theoretical framework, ISM could be instrumental in validating the variables that make up the thrust of the framework (Soti, Shankar & Kaushal, 2010).

Therefore, it could be argued that the versatility and flexibility of the ISM is crucial for establishing interrelationships between variables to determine how they drive each other and/or how dependent they are on each other. This makes it useful for this research because it can be used to create a focus on the variables related to the formulation of a workable framework for a knowledge-based economy for Qatar.

9.3 The Implementation Of Interpretive Structural Modelling

9.3.1 Step 1: Structural Self-Interaction Matrix SSIM

According to Thakkar et al. (2006), the stepwise implementation of ISM starts by developing a list of variables in no particular order. Debnath and Shankar (2012) promote the use of various management techniques, such as brainstorming, as part of the initial phase to develop and contextualise the variables necessary prior to the starting the ISM. The process is seen as a technical and management discussion within the team in order to establish the context. Therefore, the initial step is a group's judgement of the variables that could be included and/or discounted prior to the establishment of the interrelationships (Mandal & Deshmukh, 1994). The researcher used the interviewees' opinions to identify the relationships between the drivers. The

list of drivers is then compared with each other. One column is considered to have all of the elements named after the letter “*i*” while the corresponding row is named after the letter “*j*” (Debnath & Shankar, 2012). By so doing, the variables can be compared and contrasted in order to establish any drivers for power and/or interdependence. According to Debnath and Shankar (2012), four standard symbols are used to determine the contextual relationship between the variables ‘*i*’ and ‘*j*’, and these symbols are ‘V’, ‘A’, ‘X’, and ‘O’. By aligning the key elements in row and column format, the row can be denoted as ‘*j*’ and those elements in the column denoted as ‘*i*’. This allows the matrix between the pairings of ‘*i*’ and ‘*j*’ to be analysed based on the contextual relationship symbols (Divij & Banwet, 2013). Thakkar et al. (2006) and Divij and Banwet (2013) explained that the meaning of the pairings between ‘*i*’ and ‘*j*’ are as follows:

- **V** implies that the variable ‘*j*’ influences or leads to the variable ‘*i*’. However, variable ‘*i*’ does not influence variable ‘*j*’. Thus, it is one-way traffic from ‘*j*’ to ‘*i*’;
- **A** implies that there is a relationship of ‘*i*’ to ‘*j*’, but no relationship of ‘*j*’ to ‘*i*’. This is also a single direction.
- **X** implies that variables ‘*i*’ and ‘*j*’ influence or lead each other, creating a bi-directional influence.
- **O** implies that variables ‘*i*’ and ‘*j*’ have no significant relationship, or that the relationship does not appear to be valid.

The resulting diagram is called the structural self-interaction matrix (SSIM), and is shown in Table 9-1.

Table 9-1: Structural Self-Interaction Matrix (SSIM)

Code Description		1	2	3	4	5	6	6.1	6.2	6.3	6.4	7
Knowledge Based Economy	1		A	A	A	A	A	A	A	A	A	A
Creative Society	2			X	A	A	A	A	A	A	A	A
Knowledge City	3				A	A	A	A	A	A	A	A
Knowledge Based Organisation	4					A	V	V	V	V	V	A
Learning Organisation	5						V	V	V	V	V	X
Knowledge Management	6							A	A	A	A	A
Creation	6.1								X	X	X	A
Capture	6.2									X	X	A
Sharing	6.3										X	A
Transfer	6.4											A
Knowledge Worker	7											

Using the expert opinions from the interviews, the application of the SSIM was implemented by establishing the relationships of the drivers of a KBE through talent management. Table 9-1 shows a very strong link between the drivers and a KBE, such that there was no ‘O’ present in the ISM analysis, meaning that every factor had demonstrated a particular kind of relationship.

Column 7, Knowledge worker: A KBE is seen as a concept and goal to sustain the Qatari economy that currently depends on finite hydrocarbon revenues. The way the interviewees defined the KBE and the actualisation of the Qatar National Vision showed that human development and organisational activities are the significant component and cornerstone for achieving the National Vision 2030. This is because humans embody the knowledge and skills that drive industry; they transform knowledge from tacit to explicit to create new knowledge, which leads to innovation and changes social foundations and urban development. This explains the relationships in column 7 in SSIM in Table 9-2 (i-j)=A, which means that knowledge workers influence knowledge-based organisations, knowledge management and its processes, knowledge cities, and creative societies. However, knowledge workers and learning organisations have bi-directional relationships that are represented in SSIM Table 9-1 as letter ‘X’. This means that knowledge workers affect their organisations through their knowledge and skills, and their education; the organisational set-up (as a

medium to exchange knowledge) affects the worker in terms of learning and unlearning (TM9 and TM15).

Column (6, 6.1, 6.2, 6.3, 6.4), Knowledge management and processes: Interviews could not prioritise knowledge management processes, such as creation, sharing, transfer and capture, and it was not the purpose of this research to do so as much as to investigate their influential relationships on other drivers. The interviewees shared a common view about this process – that they are human-centric activities within the organisation as they affect each other. This explains the bi-directional relationship that is represented in SSIM Table 9-2 as letter ‘X’ between (6, 6.1, 6.2, 6.3, 6.4).

The interviewees stated that when employees are able to use their knowledge and experiences to capture and create, share, and transfer new knowledge within the organisation and acquire the organisational lessons learned, this results in knowledge management. This explains the (i-j)=A relationship with knowledge management. Learning organisations – *“organisational culture, lesson learned”* – and knowledge-based organisations – *“the technology used in the organisation, the structure of the organisation, activities and process”* – influence knowledge (sharing, capture, transfer, creation); as a result, LO and KBO influence knowledge management, as seen in Table 9-2 in the relationship (j-i)=V.

TM10 and TM21 stated that education and skills are the main factors for knowledge management to be creative and innovative, which in reality translated into a lot of development plans by investing in the urban and technological development that fosters knowledge creation, capture, transfer and sharing, such as Qatar Education City, and the Qatar Science and Technology Park. As a result, this helps to modify and diversify Qatar’s social culture and foster competitive advantage. This explains the (i-j)=A relationship between knowledge management and process, with creative society and knowledge city. TM5 argued that, *“because of knowledge distributed nature knowledge becomes organisational; this means [that] the created knowledge cannot easily be distributed if the medium of distribution is limited to technology”*. KM (i) influences KBE (j) because managed knowledge and other intangible assets are critical to the creation of wealth and managing an economy (‘A’). Expert opinion tallies with this view; for instance, TM4 stated that, *“the aim of creating and sharing*

and transform knowledge, Qatar has reformed its innovation channels by investing in education and skills development, high technology, science parks and research facilities such as Qatar foundation for economic growth". However, due to the lack of availability of transparent data and statistics, TM4, TM9 and TM15 argue that it acts as a barrier for knowledge management, which affects the long-term Vision 2030.

Column 5, Learning organisation: TM3 gave an example to explain a learning organisation: *"If [a] new employee joined the organisation with [a] minimum level of education and skills, how easy is the process, procedures, documentation [to] help him to facilitate his duties and learn them to be his everyday activity, and then to master it and contribute to the organisation's performance and culture by modifying the procedures creatively and innovatively for economic growth?"* This justifies the (i-j)=A relationship in that the learning organisation influences the KBE and knowledge-based organisations. In the case of local Qataris, nepotism stifles the learning process because the wrong individuals could secure the wrong positions; this makes organisational learning a significant challenge (TM5, 6, 7, 9, and 22).

Column 4, Knowledge-based organisation: Knowledge-based organisations influence society and development plans, where organisational culture acts as a barrier and a demotivating environment that prevents innovation and creativity, and threatens the stimulation of the knowledge-based Qatar National Vision. This explains (i-j)=A in Table 9-2.

Column 2, Creative society and column knowledge city: TM18 and TM13 believed that investing in a knowledge-based economy infrastructure, such as education, culture, and technology, by providing a suitable environment and urban design that will drive society to be creative and innovative. This explains the bi-directional relationship that is represented in SSIM Table 9-2 'X'. Changing the social structure and investing in technology and people and in the city will create economic growth; according to TM15, *"to sustain [the] Qatari economy, Qatar is directed to invest in arts, media, tourism, and sports; hosting the FIFA World Cup in 2022 has made Qatar known internationally"*, which justifies the (i-j)=A relationship that is represented in SSIM Table 9-2 with KBE.

9.3.2 Step 2: Initial Reachability Matrix

According to Mandal and Deshmukh (1994, p.53), the second step requires the preparation of a, “*reachability matrix*” (RM), which dictates that the SSIM is converted into a binary matrix by substituting letters ‘X’ and ‘V’ with number 1 (one) then letters ‘A’ and ‘O’ with the number 0 (zero). Therefore, all of the letters are replaced with numerical (binary) values (Tables 9-2 and 9-3).

Table 9-2: Development Of The Initial Reachability Matrix

If (i, j) entry in the SSIM IS	Entry in the initial reachability matrix	
	(i,j)	(j,i)
V	0	1
A	1	0
X	1	1
O	0	0

The Reachability Matrix presented in Table 9-3 resulted from the substitution of alphabetical values with binary values.

Table 9-3: Reachability Matrix For The Research

Code Description		1	2	3	4	5	6	6.1	6.2	6.3	6.4	7
Knowledge Based Economy	1	1	0	0	0	0	0	0	0	0	0	0
Creative Society	2	1	1	1	0	0	0	0	0	0	0	0
Knowledge City	3	1	1	1	0	0	0	0	0	0	0	0
Knowledge Based Organisation	4	1	1	1	1	0	1	1	1	1	1	0
Learning Organisation	5	1	1	1	1	1	1	1	1	1	1	1
Knowledge Management	6	1	1	1	0	0	1	0	0	0	0	0
Creation	6.1	1	1	1	0	0	1	1	1	1	1	0
Capture	6.2	1	1	1	0	0	1	1	1	1	1	0
Sharing	6.3	1	1	1	0	0	1	1	1	1	1	0
Transfer	6.4	1	1	1	0	0	1	1	1	1	1	0
Knowledge Worker	7	1	1	1	1	1	1	1	1	1	1	1

9.3.3 Step 3: Final Reachability Matrix

This step is called the transitivity stage where the scores in the reachability phase are assessed for their ‘transitivity’. This implies that if the variable ‘i’ leads to variable ‘j’, and variable ‘j’ leads to variable ‘k’, then variable ‘i’ should lead to variable ‘k’ (Mandal & Deshmukh, 1994; Thakkar et al., 2006). Using the information in Table 9-4, it was possible to obtain the driving power and dependence power of the factors used in the ISM. It can be observed that ‘organisational learning’ and ‘knowledge worker’ have the highest driving power scored at 11, while the ‘KBE’, ‘creative society’, and ‘knowledge city’ have the highest dependence power.

Table 9-4: Final Reachability Matrix For The Research

Code Description		1	2	3	4	5	6	6.1	6.2	6.3	6.4	7	Driving Power
Knowledge Based Economy	1	1	0	0	0	0	0	0	0	0	0	0	1
Creative Society	2	1	1	1	0	0	0	0	0	0	0	0	3
Knowledge City	3	1	1	1	0	0	0	0	0	0	0	0	3
Knowledge Based Organisation	4	1	1	1	1	0	1	1	1	1	1	0	9
Learning Organisation	5	1	1	1	1	1	1	1	1	1	1	1	11
Knowledge Management	6	1	1	1	0	0	1	0	0	0	0	0	4
Creation	6.1	1	1	1	0	0	1	1	1	1	1	0	8
Capture	6.2	1	1	1	0	0	1	1	1	1	1	0	8
Sharing	6.3	1	1	1	0	0	1	1	1	1	1	0	8
Transfer	6.4	1	1	1	0	0	1	1	1	1	1	0	8
Knowledge Worker	7	1	1	1	1	1	1	1	1	1	1	1	11
Dependence Power		11	10	10	3	2	8	7	7	7	7	2	

9.3.4 Step 4: Level Partitioning

Table 9-5 displays information that was essential for the process of finding the intersection between the antecedent set (column elements from the reachability matrix) and the reachability (which represents the row elements from the matrix) (Mandal and Deshmukh, 1994; Thakkar et al., 2006). The implementation of iterations matches the levels of comparison between the antecedent set and reachability set; therefore, each iteration produces a highest factor. Once the highest factor has been identified, it has to be removed (eliminated) from the next comparison so that it does not appear in the next iteration process (Mandal and Deshmukh, 1994; Thakkar et al., 2006). The result of the intersection between the two sets produces the top-level factors within the ISM hierarchy. After the first iteration, KBE was produced as the highest factor – see Table 9-5. The second iteration produced

‘knowledge city and creative society’ as the level-two factors for the ISM. The third iteration produced ‘knowledge management’, and its processes came as the main factors from the fourth iteration. The fifth iteration produced knowledge-based organisations as the main factor for the fifth level. The sixth iteration produced knowledge worker and organisational learning as the main drivers of the sixth level.

Table 9-5: Partitioning Table

Iteration 1																							
Code Description	Reachability										Antecedent set							Intersection set	Level				
Knowledge Based Economy	1	1																			1 2 3 4 5 6 6.1 6.2 6.3 6.4 7	1	1
Creative Society	2	1	2	3																	2 3 4 5 6 6.1 6.2 6.2 6.4 7	2, 3	
Knowledge City	3	1	2	3																	2 3 4 5 6 6.1 6.2 6.2 6.4 7	2, 3	
Knowledge Based Organisation	4	1	2	3	4																4 5 6 6.1 6.2 6.3 6.4 7		4
Learning Organisation	5	1	2	3	4	5															5 6 6.1 6.2 6.3 6.4 7		
Knowledge Management	6	1	2	3																	6 6.1 6.2 6.3 6.4 7		
Creation	6.1	1	2	3																	6 6.1 6.2 6.3 6.4 7		
Capture	6.2	1	2	3																	6 6.1 6.2 6.3 6.4 7		
Sharing	6.3	1	2	3																	6 6.1 6.2 6.3 6.4 7		
Transfer	6.4	1	2	3																	6 6.1 6.2 6.3 6.4 7		
Knowledge Worker	7	1	2	3	4	5	6	6.1	6.2	6.3	6.4	7									7	5, 7	
Iteration 2																							
Code Description	Reachability										Antecedent set							Intersection set	Level				
Creative Society	2		2	3																	2 3 4 5 6 6.1 6.2 6.2 6.4 7	2, 3	
Knowledge City	3		2	3																	2 3 4 5 6 6.1 6.2 6.2 6.4 7	2, 3	
Knowledge Based Organisation	4		2	3	4																4 5 6 6.1 6.2 6.3 6.4 7		4
Learning Organisation	5		2	3	4	5															5 6 6.1 6.2 6.3 6.4 7		
Knowledge Management	6		2	3																	6 6.1 6.2 6.3 6.4 7		
Creation	6.1		2	3																	6 6.1 6.2 6.3 6.4 7		
Capture	6.2		2	3																	6 6.1 6.2 6.3 6.4 7		
Sharing	6.3		2	3																	6 6.1 6.2 6.3 6.4 7		
Transfer	6.4		2	3																	6 6.1 6.2 6.3 6.4 7		
Knowledge Worker	7		2	3	4	5	6	6.1	6.2	6.3	6.4	7									7	5, 7	
Iteration 3																							
Code Description	Reachability										Antecedent set							Intersection set	Level				
Knowledge Based Organisation	4				4																4 5 6 6.1 6.2 6.3 6.4 7		4
Learning Organisation	5				4	5															5 6 6.1 6.2 6.3 6.4 7	5, 7	
Knowledge Management	6																				6 6.1 6.2 6.3 6.4 7		6
Creation	6.1																				6 6.1 6.2 6.3 6.4 7		
Capture	6.2																				6 6.1 6.2 6.3 6.4 7		
Sharing	6.3																				6 6.1 6.2 6.3 6.4 7		
Transfer	6.4																				6 6.1 6.2 6.3 6.4 7		
Knowledge Worker	7				4	5	6	6.1	6.2	6.3	6.4	7									7	5, 7	
Iteration 4																							
Code Description	Reachability										Antecedent set							Intersection set	Level				
Knowledge Based Organisation	4																				4 5 6 6.1 6.2 6.3 6.4 7		4
Learning Organisation	5																				5 6 6.1 6.2 6.3 6.4 7	5, 7	
Creation	6.1																				6 6.1 6.2 6.3 6.4 7		
Capture	6.2																				6 6.1 6.2 6.3 6.4 7		
Sharing	6.3																				6 6.1 6.2 6.3 6.4 7		
Transfer	6.4																				6 6.1 6.2 6.3 6.4 7		
Knowledge Worker	7				4	5	6	6.1	6.2	6.3	6.4	7									7	5, 7	
Iteration 5																							
Code Description	Reachability										Antecedent set							Intersection set	Level				
Knowledge Based Organisation	4																				4 5 6 6.1 6.2 6.3 6.4 7		4
Learning Organisation	5																				5 6 6.1 6.2 6.3 6.4 7	5, 7	
Knowledge Worker	7																				7	5, 7	
Iteration 6																							
Code Description	Reachability										Antecedent set							Intersection set	Level				
Learning Organisation	5																				5 6 6.1 6.2 6.3 6.4 7	5, 7	
Knowledge Worker	7																				7	5, 7	6

9.3.5 Step 5: Driver Classification Using The MICMAC Analysis

The final stage is to use the transitivity to create a balanced scorecard, which allows the binary values to be mapped onto two axes: one looking at the driving powers, and the other looking at the dependence of the variables, hence creating the interrelationships (Tripathy et al., 2013). This stage culminates as an interpretive structural model (ISM) (Figure 9-1).

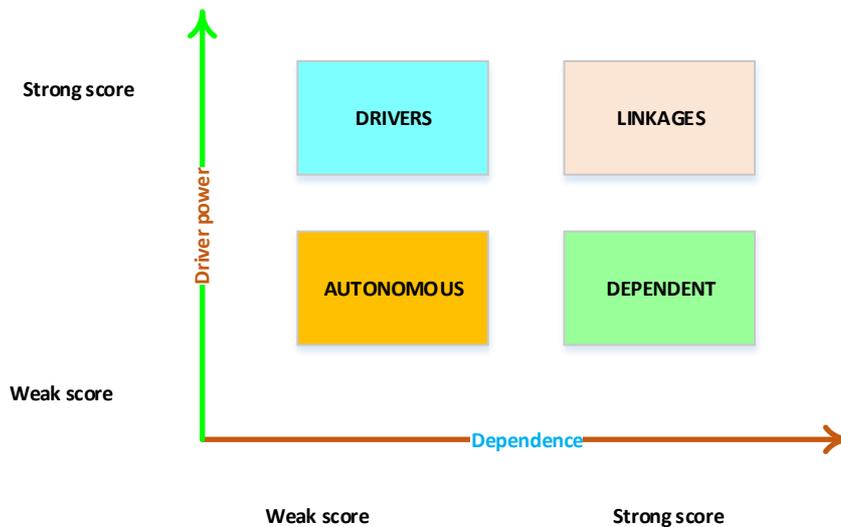


Figure 9-1: *Driving Powers And Dependence Diagram* (Adapted: Tripathy et al., 2013, p.212)

Using ISM could facilitate the process of creating a hierarchical structure of the variables under consideration, from the most significant to those whose significance could be termed as weak (Yadav, 2014). With a hierarchical structure of variables, it is possible to establish the evolutionary development of the links between variables and the impact that they may have on the areas of interest to the modeller, hence allowing for a critical evaluation of those variables in relation to the issues at hand (Divij & Banwet, 2013). Therefore, variables have to be categorised using a quadrant made of four key words: autonomy, driver (independent), link, and dependence. This implies that variables could be viewed in terms of how autonomous they are; how they drive other variables; how they depend on other variables; and how the variables link (Divij & Banwet, 2013) – see Figure 9-1.

Using the information in Table 9-5, it was possible to use the driver power and dependence power to classify the factors under these titles, as shown in Figure 9-1. The result from Table 9-2 indicates the following:

- Driver (independent) Cluster

Three drivers were classified under this cluster, which were:

- Knowledge worker
- Learning organisation
- Knowledge base organisation

Due to the high driver power and low dependence power, these drivers are fundamental for the implementation of a knowledge-based economy. The following drivers are dependent on the achievement of the other drivers.

- Dependent Cluster

- Knowledge-based economy
- Knowledge city
- Creative society
- Knowledge management

In contrast, factors or drivers under the following cluster are considered to be disconnected, and have no influence on the implementation of a knowledge-based economy.

- Autonomous Cluster

Finally, drivers in the following cluster have a strong dependence and driving power. These drivers will have an effect on stimulating the KBE.

- Linkage Cluster

- Creation
- Capture
- Sharing
- Transfer

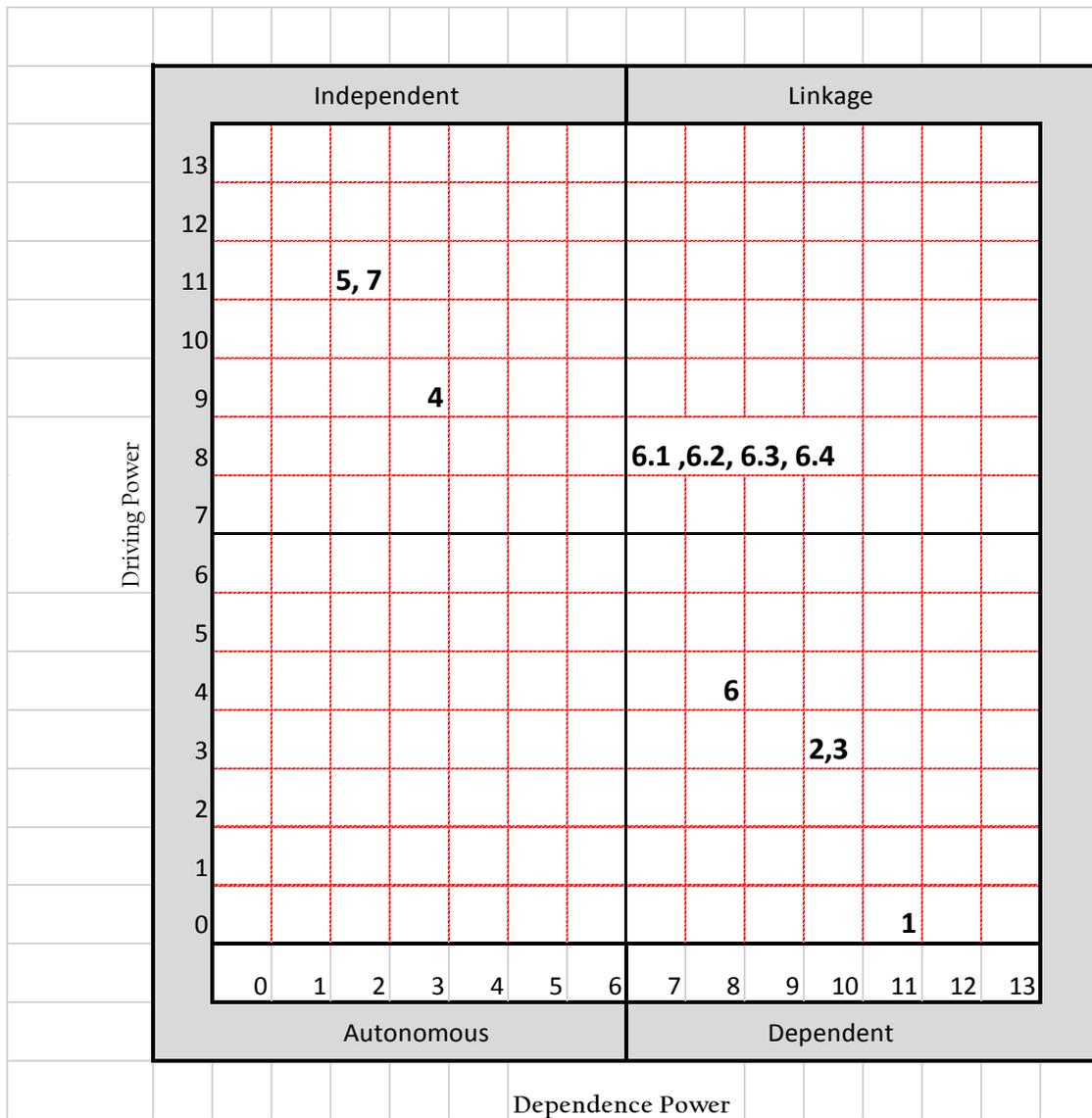


Figure 9-2: MICMAC Analysis For All Drivers

9.3.6 Step 6: Diagram of The ISM

Using the data presented in Table 9-5 (partitioning table), it was possible to develop the ISM model shown in Figure 9-3. The directional arrows explain the relationship between the drivers from the interviewees' views. The top level of the ISM resulted from partition table level 1 (Knowledge-Based Economy), using ascending order to level 6 (Knowledge Worker) and (Learning Organisation). To explain the meaning of the ISM model, it was better to commence from the bottom to the top, meaning that the explanation begins with level 6 and ends at level 1. This approach enhances the comprehensibility of the linkages between the drivers.

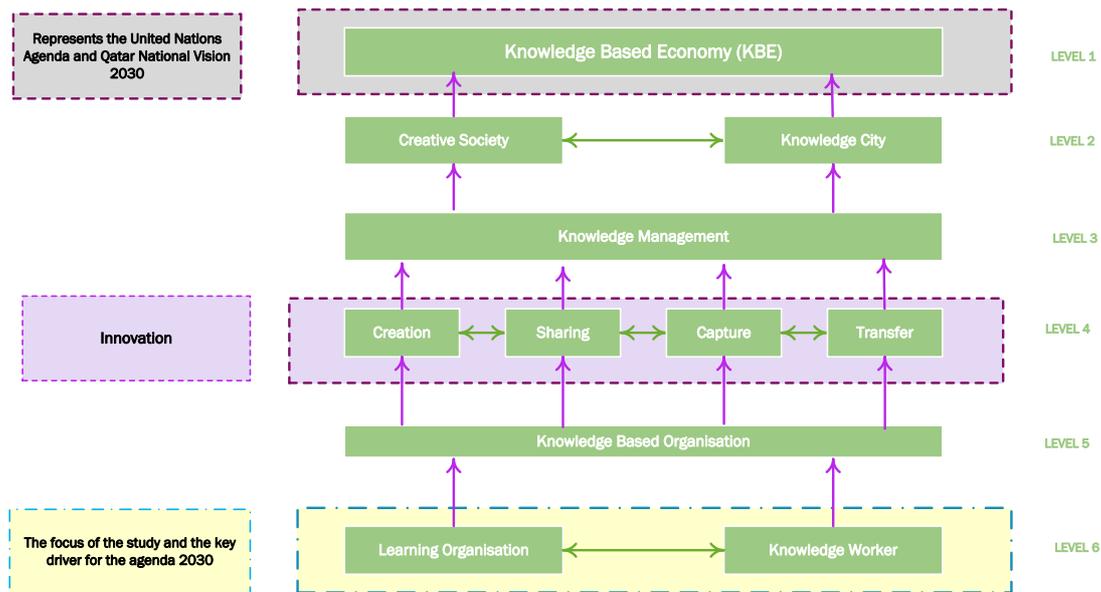


Figure 9-3: Interpretive Structural Model

- From **Level 6**, it can be seen that the drivers ‘Learning Organisation’ and ‘Knowledge Worker’ have a bi-directional relationship that facilitates the establishment of a knowledge-based organisation (**Level 5**).
- **Level 4** comprises the knowledge-based organisation, which presents organisational culture and experience. These drivers act as a medium for the creation, capture, transfer, and sharing of knowledge. This level is closely related to the implementation of knowledge management and stimulates innovation.
- **Level 3** deals with knowledge management, which basically means that tacit and explicit knowledge from the organisation can be managed in such a way that it can enhance the performance of an organisation.
- **Level 2** deals with the bi-directional relationship between a creative society and knowledge city; these are factors that make up the cultural attributes of society. If these are not well managed, there would be a weak link with the knowledge-based economy.
- **Level 1** of the ISM model (Figure 9-3) is an amalgamation (summation) of the levels 2 to 6 whereby the knowledge-based economy could be realisable if these key steps are achieved.

9.4 Summary

The ISM model illustrated a strong connection between the KBE drivers and the influential relationship between each driver. The drivers were identified through the literature review. However, the researcher used expert views through the interviews to identify the most influential elements to stimulate the Qatar National Vision 2030, which is knowledge-based, and to help decision makers in the Qatari government and executives in organisations realise the importance of human development as a corner stone to sustain Qatari economic development. The novelty of this research is the establishment of the relationships and ranking of the main drivers of a KBE using ISM as a practical guide for achieving the QNV 2030 agenda. The absence of an autonomous element showed that all of the identified drivers influence the stimulation of a KBE. It has been argued that a country's chances of achieving a KBE strongly depend on human development and innovation (Carrillo, 2008). Ergazakis and Metaxiotis (2011) suggested that, for any policy on a knowledge-based economy to perform well, it has to take a "*holistic and unified approach*" in order to facilitate the "*practical formulation of citizen-centric knowledge-based development strategies; knowledge-based urban planning; knowledge-based development assessment and metrics and the practical aspects of implementation of knowledge-based development approaches*".

Currently, the Qatari vision and its policy stresses that there is a serious challenge in promoting the transition from a hydrocarbon industry to a knowledge-based economy because local Qataris are not taking up the mantle and developing the country's human capital. Secondly, there has been ongoing emphasis on investing in infrastructure as a way of transforming the economy at the expense of human development. Thirdly, there has been an overreliance on migrant workers in strategic positions (GSDP, 2008). Al-Saadi (2010) argued that, despite the availability of financial resources from the government and various investors, Qatari industries have experienced inherent deficiencies in meeting cost targets, schedule targets, and quality and performance standards, and have encountered delays, disputes, procurement problems, and communication and contractual problems. These are mainly attributable to poor knowledge-driven economic performances, as alluded to earlier

(GSDP, 2008). This is because local Qataris are reluctant to lead and drive the economy from a carbon to a knowledge-base.

10 CHAPTER TEN: DISCUSSION AND RESULTS

10.1 Introduction

The researcher examined the questionnaire surveys and interviews to collect the data. The researcher used descriptive data analysis and non-parametric analysis, such as Chi-Square, Gamma, and multiple regression, for the qualitative data analysis. In addition, thematic analysis was carried out on the interview material by using expert views to develop a high level model using ISM. This enabled the researcher to fulfil the aim of this research, namely to develop a framework for talent management to support the 2030 KBE Vision for Qatar.

This chapter is structured as follows:

- Summary of the research steps
 - Review of the objectives
- Results for the hypothesis tests
- Results of the Gamma analysis
- Results of the multiple regression
- Results from the interview analyses
- Contribution to knowledge and recommendations for the framework
- Validation and refinement of the findings

10.2 Summary of the Research Steps

The aim of the research has been to develop a framework to transition the Qatari economy into a knowledge-based system through talent management. This aim has been fulfilled. The evidence from the regression models in section 7.10 as well as the qualitative data from the interviews indicate that organisations in Qatar do not have specific talent management strategies in place that they can deploy to undertake human development. The research found elements of human resource development; however, such a level of human development would not suffice for organisations that are trying to become learning organisations as well as those positioning themselves within a KBE.

Using the results from the survey, multiple linear regression, and interview data, the research has proposed a bi-directional matrix advisory framework that addresses the importance of talent in the form of a knowledge worker, a learning organisation, the management of knowledge and the appreciation of the Vision 2030 policy in Qatar. The framework superimposes the key steps that are necessary for the industry to implement the Vision 2030 policy through human development (talent management).

Review Of The Objectives

i. To evaluate the current perception of a knowledge-based economy in Qatar. The research critically reviewed relevant literature to understand the concept of the knowledge-based economy in the context of the GCC region, and more specifically in Qatar; it achieved this in part by reviewing the Qatar National Vision 2030 and the 2011-2016 strategy. It defined the KBE as an economic success that is increasingly based on the effective utilisation of intangible assets, such as knowledge, skills and innovative potential, as the key resources for an economy to be competitively advantageous over other economies. It also implies that the economy can be structured in such a way that it takes into account the need to transition from a low to a high-tech economy and a knowledge-intensive economy for both the private and public sectors (Kamrava, 2012a, 2012b) where knowledge becomes the core tool for empowerment of the citizenship or the key participants in the economy. This, it is believed, would be the best response to the United Nations', of which Qatar is a member, (UN) agenda, which is to transform the world through sustainable development by 2030 (United Nations, 2015).

Additionally, this study investigated the main drivers for a knowledge-based economy and how they influence economic development. Knowledge workers were found to be central to the KBE because they provide a body of knowledge to implement various tasks in the work environment. Organisations have to design their operations so that they can supply them with the right human resources. Investing in people or workers to enable them to participate in the innovative transformation of knowledge to better the means of production is critical to the success of a transition to a KBE. In addition, organisations have to create a system of profound knowledge, central to which is the reliance on knowledge workers. Therefore, for GCC countries to develop into KBEs, there is a need to engage robust innovative ecosystems that can translate novelty into

practical business concepts, which in turn can create and lead to the commercialisation of knowledge in day-to-day economic, social and cultural activities.

- ii. To examine the level of learning (and unlearning) critical to the development of a knowledge-based economy.

Creating a link between the knowledge-based economy and the activities that affect people fulfilled this objective; this link could be the community where the worker would be found. The process of transforming an economy into a KBE requires, among other things, the incorporation and engagement of all sectors in the economy so as to create and transfer both explicit 'know-how' knowledge and tacit 'know-how' knowledge for use in a new economic structure (Osman, 2014). Osman (2014, pp.5-6) further argues that, "*central to developing knowledge-based economies is the production, transfer and application of knowledge that leads to innovation*", meaning that knowledge acts as the source of discovery innovation (Egbu, 2015). It also implies that innovation is created in the knowledge-management phase of the transformation of the economy into a KBE.

- iii. To critically evaluate talent management (TMS) for a knowledge-based economy in Qatar.

Using this objective, it was possible to determine that Qatar did not have a strategy for talent or human development, so the research depended on the evaluation of the literature to understand the concept of talent management. It was also helpful in examining that knowledge as a tool to build capacity; it could therefore be linked with knowledge workers, as it is the worker who has to change or reorient the routines of production to keep an economy developing. Huosong et al. (2003) argued that the creation of knowledge systems that could be shared at the organisational level results in competitive advantage, creating a situation where shared knowledge could benefit organisations. Knowledge can be shared using systems; however, workers need to be considered. This implies that there was an argument that the

analysis of knowledge policies needs to go beyond information and technology; in developing a knowledge-based economy, it is essential to incorporate a robust and more encompassing image of the future (Hearn & Rooney, 2002).

The image of the future was crucial, and imperative to include the workforce within it. Until recently, firms have ignored the human element of organisational knowledge management due to its highly intangible nature; its link to human resource has therefore been neglected over the years. However, there has been an internationally accepted view that the creation of knowledge within organisations is crucial for employees to perform well. An organisation would need to prepare itself to harness learning processes to ensure that knowledge is retained, shared, and used in order to enhance their competitiveness.

- iv. To identify and critically assess factors necessary for implementing talent management in knowledge-based organisations in Qatar.

The research used interpretive structural modelling (ISM) as a qualitative modelling tool to assess the relativity in terms of influence that factors have on each other. This allowed for an assessment of the interrelationships between factors that form part of the issue under investigation (Thakkar et al., 2008). ISM facilitates a detailed examination and comparative analysis of such factors in order to understand how they influence each other (Thakkar et al., 2006).

- v. To conceptualise a framework for the implementation of a talent management strategy for a knowledge economy in Qatar.

There was a need to use primary data as well as literature to undertake a review of what could be required to transition the Qatari economy to a KBE, and to assess the impact of a shift from relying on physical capital and low-cost labour for competitive advantage to incorporating technology and knowledge-based industries as major generators of value-added exports and

new jobs (Ulrichsen, 2012). It was therefore envisaged that a strategy to guide the translation of Qatar’s oil wealth into human capital was integral; however, this shift to a KBE has been unclear in many ways. It was therefore compelling to examine the current strategies that companies were using to develop their local talent pool to support the Qatari government’s Vision for 2030.

10.3 Results Of The Hypotheses Tests

10.3.1 Results For Hypothesis 1

Using the Chi-squared test results from sections 8.6.1.1 to 8.6.1.8 of this research, it can be seen that out of the 9 sets of cross tabulations, 8 sets produced results that led to the rejection of the hypotheses for an association between responses. Only one set produced the result that led to a failure to reject the hypothesis for association between responses. Using the summation of the responses:

“H₀: The Qatari Vision 2030, as a policy, has no significant impact on the process of actualisation of the KBE in Qatar”.

This hypothesis is rejected because the respondents were of the view that the Vision was the main driver for which the actualisation of the KBE in Qatar was concerned.

Human resource development could be valuable for Qatar to gain competitive advantage	A framework or plan is required to run the business for a KBE
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Results H₀ is true; The Qatari Vision 2030, as a policy, has no significant impact on the process of actualisation of the KBE in Qatar

“H₁: H₀ not true; The Qatari Vision 2030, as a policy, has a significant impact on the process of actualising the KBE in Qatar”

Qatari	A KBE could be valuable for Qatar to gain competitive advantage
Vision 2030	The government should incentivise organisations to achieve the Qatar

has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	National Vision 2030 (QNV 2030)
	Leadership and authority are available to support the scope of the Qatar National Vision 2030
	New technology plays a supporting role in the Vision 2030
	Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge.
	Qatar cities are designed to support a sustainable economy

Human resource development could be valuable for Qatar to gain competitive advantage	Talent management is important to having a knowledge-based economy that supports Qatar National Vision 2030
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Results that $H_1: H_0$ not true; The Qatari Vision 2030, as a policy, has a significant impact on the process of actualisation of the KBE in Qatar

10.3.2 Results for Hypothesis 2

Using the Chi-squared test results from sections 8.7.1.1 to 8.7.1.12 of this research, it can be seen that out of the 12 sets of cross tabulations, 10 sets produced results that led to the rejection of the hypotheses for association between responses. Only 4 sets produced the result that led to failure to reject the hypothesis for association between responses. Using the summation of the responses under sections 8.7.1.1 to 8.7.1.12, the hypothesis " H_0 : *The current organisational set up in Qatar is inadequate for the economy to develop to a KBE by 2030*" can be rejected. Therefore, $H_1: H_0$ is not true.

Human resource development could be valuable for Qatar to gain competitive advantage	Organisational strategy motivates the workforce for Vision 2030
	Your organisation picks people to

	develop as future talent for the company
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Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves
	Your organisation provides a mechanism for employees to learn from each other regardless of the management level

Results that H_0 is true; the current organisational set up in Qatar is inadequate to stimulate a knowledge-based economy by 2030

Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy	Your organisation ignores individual knowledge and experience in favour of ICT and systems.
	Your organisation creates knowledge that is worth capturing and sharing within the economy
	The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030)
	Qataris are motivated to develop themselves in organisation to become leaders
	Organisations were keen to implement organisational learning at all management levels of the company
	The culture in your organisation allows for creating knowledge

Results that H_1 : H_0 not true; the current organisational set up in Qatar is adequate to stimulate a knowledge-based economy by 2030

10.3.3 Results for Hypothesis 3

Using the Chi-squared test results from sections 8.8.1.1 to 8.8.1.5 of this research, it can be seen that out of the five sets of cross tabulations, two sets produced results that led to the rejection of the hypotheses for association between responses. However, three sets produced results that led to a failure to reject the hypothesis for association between the responses. Using the summation of the responses under the sections 8.8.1.1 to 8.8.1.5, the hypothesis: “ H_0 : Talent management is significantly inadequate to stimulate a knowledge-based economy” can be rejected. Therefore, H_1 : H_0 is not true.

Human resource development could be valuable for Qatar to gain competitive advantage	Qatari organisations do not recognise intellectual capital as a local asset base
	Talent management could lead organisations achieve the Vision 2030
	Your organisation has a human resource development (HRD) strategy

Results that H_1 : H_0 is not true; talent management is significantly adequate to stimulate a knowledge-based economy

Human resource development could be valuable for Qatar to gain competitive advantage	Your organisation has a strategy to develop their talent
	Qatari organisations do not use talent management in nurturing and developing local talent

Results that H_0 is true; talent management is significantly inadequate to stimulate a knowledge-based economy

10.4 Results Of The Gamma Analysis

Using the information presented in Table 7-79, it was possible to identify the 'Gamma value'. The most important element of the Gamma value was to assess the significance of the factors, as follows:

- j) Leadership
- k) Top management
- l) Infrastructure
- m) Human capital
- n) Innovation and research
- o) Incentives
- p) Culture
- q) Vision and strategy
- r) ICT

The result shows that the factors were significant for the following:

- The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030);
- The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030);
- Motivation to develop yourself in the organisation to become a leader;
- A knowledge-based economy could be valuable for Qatar to gain competitive advantage;
- The reliance on knowledge could be valuable for Qatar to gain competitive advantage;
- New technology plays a supporting role in the Vision 2030;
- Your organisation creates knowledge that is worth capturing and sharing within the economy.

The analysis in Table 7-80 was performed on the listed factors below, mainly to examine the extent to which they identify the behaviour and skills that are significant to support the strategic objectives of organisations as well as to assess how the industry has been dealing with talent management. The key factors used in the Gamma analysis were:

- a) Leadership/executive team
- b) Middle/ line management
- c) High potentials
- d) Engineers
- e) Graduates
- f) Administrative team

The results identify that behaviour and skills are significant to:

- Having a human resource development (HRD) strategy
- Picking people to develop as future talent for the company
- Having a talent identification programme
- Having a strategy to develop talent in the organisation
- A framework or plan to run the business for a Knowledge-Based Economy (KBE)
- Developing a strategy to motivate the workforce for the Vision 2030
- Leading your organisation to achieve the Vision 2030 by managing their talent

These factors have been examined under Chapter Seven through multiple linear regression, where dependent variables, such as leadership, structure of management, level of opportunities given to local Qataris and the levels of education, were correlated with various independent variables. The result indicated that these attributes were critical to the development of talent so that organisations within the Qatar economy could adequately facilitate the management of talent.

10.5 Results Of The Multiple Regression

The multiple regression analysis performed on the listed factors was mainly aimed at assessing the support for the achievement of a knowledge-based economy in Qatar. These factors were regressed as the dependent factors:

- a) Leadership
- b) Top management
- c) Infrastructure
- d) Human capital
- e) Innovation and research
- f) Incentives
- g) Culture
- h) Vision and strategy
- i) ICT

It was assumed that the above factors had no significant impact on the subset hypotheses:

- Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy'
- Your company relies on business from the oil and gas sectors of the economy;
- The government should incentivise organisations to achieve the Qatar National Vision 2030 (QNV 2030);
- The organisation should incentivise the employees of various organisations to work towards the achievement of the Qatar National Vision 2030 (QNV 2030);
- You are motivated to develop yourself in the organisation to become a leader;
- Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge;
- Professional practice within your organisation is keen to implement knowledge management through knowledge creation and sharing;
- Your organisation is keen to implement organisational learning at all management levels of the company;
- A knowledge-based economy could be valuable for Qatar to gain competitive advantage;
- Your organisation ignores individual knowledge and experience in favour of ICT and systems;

- Your organisation provides a mechanism for employees to learn from each other regardless of the management level;
- The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves;
- The reliance on knowledge could be valuable for Qatar to gain competitive advantage;
- Qatar cities are designed to support a sustainable economy;
- The culture in your organisation allows for creating knowledge;
- Leadership and authority are available to support the scope of the Qatar National Vision 2030;
- New technology plays a supporting role in the Vision 2030;
- Your organisation creates knowledge that is worth capturing and sharing within the economy.

As resulted from the multiple regression analysis, the initial assumption is rejected. The factors have a significant effect on the above subset hypotheses. This also means that the factors have an impact on the following main hypotheses:

- The Qatari Vision 2030, as a policy, has a significant impact on the process of actualisation of the KBE in Qatar;
- The current organisational set up in Qatar is adequate for the economy to develop to a KBE by 2030;
- Measures in place to identify key talent in organisations are significantly adequate to stimulate an economy that is knowledge-based in Qatar.

Similar to the previous section, multiple regression analysis was performed on the listed factors below, mainly to examine the extent to which behaviour and skills are identified to support the strategic objectives of organisations as well as to assess how the industry has been dealing with talent management. The key factors used in multiple regression analysis were:

- a) Leadership/executive team
- b) Middle/ line management
- c) High potentials
- d) Engineers

e) Graduates

f) Administrative team

In order to predict the impact of the listed factors on the three hypotheses, it was presupposed that identifying the behaviour and skills for the above listed factors had no significant impact on the sub hypotheses.

- Human resource development could be valuable for Qatar to gain competitive advantage;
- Qatari organisations do not use talent management in nurturing and developing local talent;
- Qatari organisations do not recognise intellectual capital as a local asset base;
- Talent management is important to having a knowledge-based economy that supports the Qatar National Vision 2030;
- Your organisation has a human resource development (HRD) strategy;
- Your organisation picks people to develop as future talent for the company;
- Your organisation has a talent identification programme;
- Your organisation has a strategy to develop their talent;
- A framework or plan is required to run the business for a knowledge-based economy (KBE);
- Your organisational strategy motivates the workforce for the Vision 2030;
- Talent management could lead your organisation to achieve the Vision 2030.

As shown from the multiple regression analysis, the initial assumption was rejected. The defining skills and behaviours of the above factors have a significant effect on the above subset hypothesis. This means that the factors have an impact on the following main hypotheses:

- The Qatari Vision 2030, as a policy, has a significant impact on the process of actualising the KBE in Qatar;
- The current organisational set up in Qatar is adequate for the economy to develop a KBE by 2030;
- Measures in place to identify key talent in organisations are significantly adequate to stimulate an economy that is knowledge-based in Qatar.

Table 10-1 illustrates Qatar's economic performance according to (GII, 2016) to support the researcher analysis outcomes.

Table 10-1: Qatar's Economic Performance (Source: Global Innovation Index, 2016)

Property	Rank	Score (0-100)
Institutions	34	75
Political environment	24	77.2
Political stability and absence of violence/terrorism	20	87.7
Government effectiveness	36	66.6
Regulatory environment	62	67.5
Regulatory quality	47	58.8
Rule of law	29	71.7
Cost of redundancy dismissal	99	69.9
Business environment	30	80.3
Ease of starting a business	82	83.2
Ease of resolving insolvency	48	58.4
Ease of paying taxes	1	99.4
Human capital and research	59	32.6
Education	98	35.6
Expenditure on education	91	28.4
Government expenditure on education per pupil, secondary	98	7.8
School life expectancy	73	51.3
Assessment in reading, mathematics, and science	60	18.5
Tertiary education	13	55.5
Tertiary enrolment	97	13.7
Graduates in science and engineering	16	54.1
Research and development (R&D)	71	6.8
Researchers	57	7.1
Gross expenditure on R&D (GERD)	63	10
Global R&D companies, average expenditure top 3	45	0
QS university ranking average score top 3 universities	61	9.9
Infrastructure	16	60.5

Information and communication technologies (ICTs)	30	69.2
ICT access	20	81.3
ICT use	22	69.3
Government's online service	37	65.4
Online e-participation	45	60.8
General infrastructure	1	75.4
Ecological sustainability	89	36.9
Business sophistication	78	29.3
Knowledge workers	110	21
Employment in knowledge-intensive services	75	28.4
Firms offering formal training	n/a	n/a
Females employed with advanced degrees	78	13.2
Innovation linkages	32	40.1
University/industry research collaboration	8	74
State of cluster development	8	71.4
Knowledge absorption	73	26.9
Intellectual property payments	n/a	n/a
High-tech imports	118	6.6
ICT services imports	10	47
Foreign direct investment, net inflows	114	20.8
Research talent in business enterprise	46	33.4
Knowledge and technology outputs	88	20
Knowledge creation	108	3.1
Scientific and technical publications	94	7
Citable documents	99	4.7
Knowledge impact	95	28.5
Growth rate of GDP per person engaged	67	56.7
Total computer software spending	61	14.2
High-tech and medium high-tech output	56	29.1
Knowledge diffusion	44	28.3
Intellectual property receipts	n/a	n/a
High-tech exports	121	0
ICT services exports	102	3.6

Creative outputs	49	33.8
Intangible assets	25	52.9
Industrial designs by origin	n/a	n/a
ICTs and business model creation	3	80.1
ICTs and organisational model creation	7	76.6
Creative goods and services	77	16.8
Cultural and creative services exports	n/a	n/a
National feature films produced	n/a	n/a
Global entertainment and media market	21	34.8
Printing and publishing output	56	24.5
Creative goods exports	124	0

10.6 Results From The Interview Analyses

The aim of the in-depth interviews with experts is to investigate the current opportunities and challenges faced by Qatari organisations in the development of talent. As discussed in Chapter Eight, the main challenges are:

- **Administrative**
 - The challenge of getting the right people into the right positions;
 - Small Qatari population;
 - Nepotism;
 - Perceptions of professions and specialisms.
- **Economic**
 - Over-reliance on hydrocarbon revenues;
 - Deficit in Qatar economy due to oil price drop.
- **Educational**
 - Gap between university and college outputs; Qatar economy needs to stimulate the Qatar National Vision 2030 towards an economy that is knowledge-based, due to the lack of specialisation, innovation, and research and development in the country in recent years.
- **Cultural influences**
 - Loyalty to tribes and relationships more important than efforts and achievements;

- Fear of making mistakes;
- Value to enjoy luxury life.

Defining the relationships for the main factors for a knowledge-based economy.

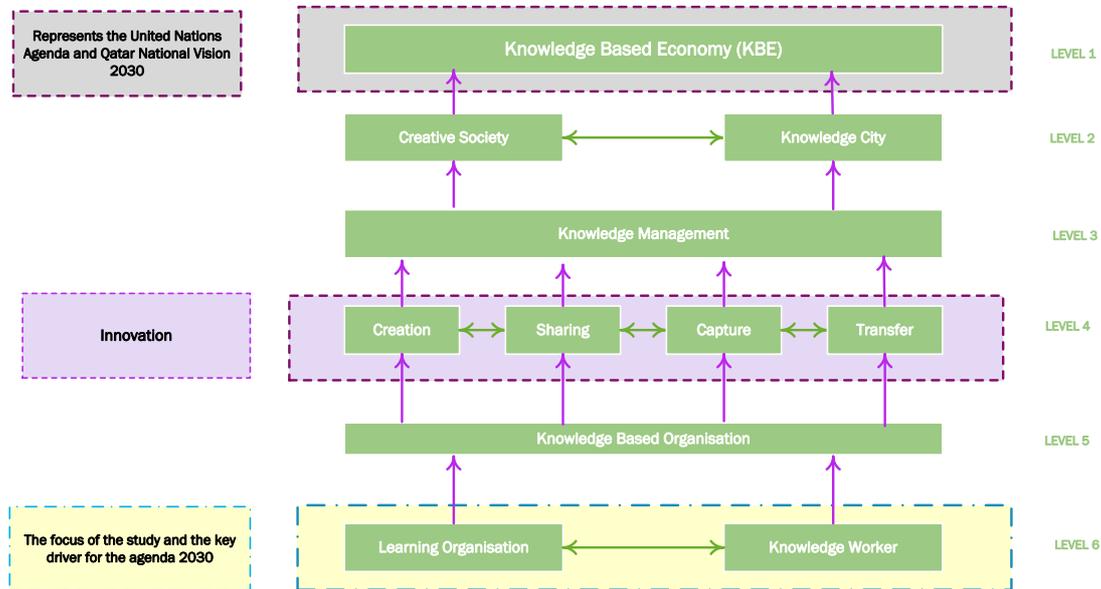


Figure 10-1: Interpretive Structural Model

Based on the analysis, the results indicate that there are fewer Qataris ready to engage in non-managerial tasks than in other Gulf countries. This can be interpreted as the result of the redistribution of Qatar’s oil and gas revenues, which has made Qataris among the richest people in the world and therefore less likely to work. It is also noticeable that the QNV 2030 does not operationalise how to transform the talent of local Qataris to drive the economy into a KBE. This means that while opportunities for talent management through human development abound for local Qataris, no clear systems or strategies have been put in place to identify and develop the right talent. As a result, there are high levels of nepotism and cultural bias towards clans and relations. Despite the over-centralisation of power in the country, the ruler has made sure that Qatar is associated not with the ‘now’ – a nation dominated and built by expatriate labour – but with what is ‘behind it’ – a past reconstructed and reconstituted into nationalised historical moments associated irrevocably with the right of Al-Thani to rule and the right of the Qatari citizens to enjoy all of the benefits of modern materialism at the service of reconstituted, neo-traditional identities. This

deliberate policy by the ruler aims to modernise the nation (Kamrava, 2012b) by ensuring that there is finance for every local Qatari to improve their livelihood (Seznec, 2012). At the organisational level, Qataris face administrative and leadership challenges in the implementation of a talent strategy that could be instrumental in attaining KBE.

The research results also show that, if the leadership of organisations could put in place mechanisms that could identify the right talent in the right positions without nepotism, it could be possible to develop a synergistic approach to ensuring that the Vision 2030 could be operationalised at the organisational level so as to simplify its actualisation.

10.7 Contributions To Knowledge And Recommendations For The Framework

Using the information from the research process, it could be concluded that there were three main contributions to knowledge, as explained further within this section.

10.7.1 Theoretical Contribution

There is a theoretical contribution to knowledge through the comprehensive identification and definition of the main drivers for knowledge-based organisations and how knowledge workers would be managed if their organisations were to align their productivity measures to a futuristic knowledge-based economy. Mere realisation of the importance of knowledge management to an organisation could not guarantee the transition needed for it to implement a strategy that would develop its talent and enable it to become competitive in a KBE. This has been clearly established through the identification of the key factors, tested through the multiple linear regression to assess how usable they were in predicting the potential impact on the performance of an organisation.

10.7.2 Methodological Contribution

This research has made a significant contribution to methodological strategies with interpretive structural modelling (ISM) used for the selection of the weighting of

drivers, which could be used on talent management for the KBE. The ISM technique was able to use expert opinions to transform qualitative data into tangible (quantitative) variables that were needed to establish the level or weighing of drivers for which a decision can be made with regards to how critical the drivers are to the framework. The application of ISM was clearly presented in section 9.4. In addition, ISM techniques are relatively new to the fields of talent management and the knowledge-based economy; hence it allowed any bias to be removed from the selection of variables included in the development of the framework.

10.7.3 Practical Contribution

Figure 10-2 shows the proposed framework, which aims to offer an operational guide to develop a national strategy that organisations can use to develop talented management strategies under the umbrella of ‘human development’ so that local Qataris can realise how vital they are to work in organisations. The goal is to ensure that organisations can sustain the Qatari economy and that Qatari industry will use the framework as a guideline to develop their employees’ skills for productive economic performances. The framework is an advisory tool targeting Qatar’s government, industries and people.

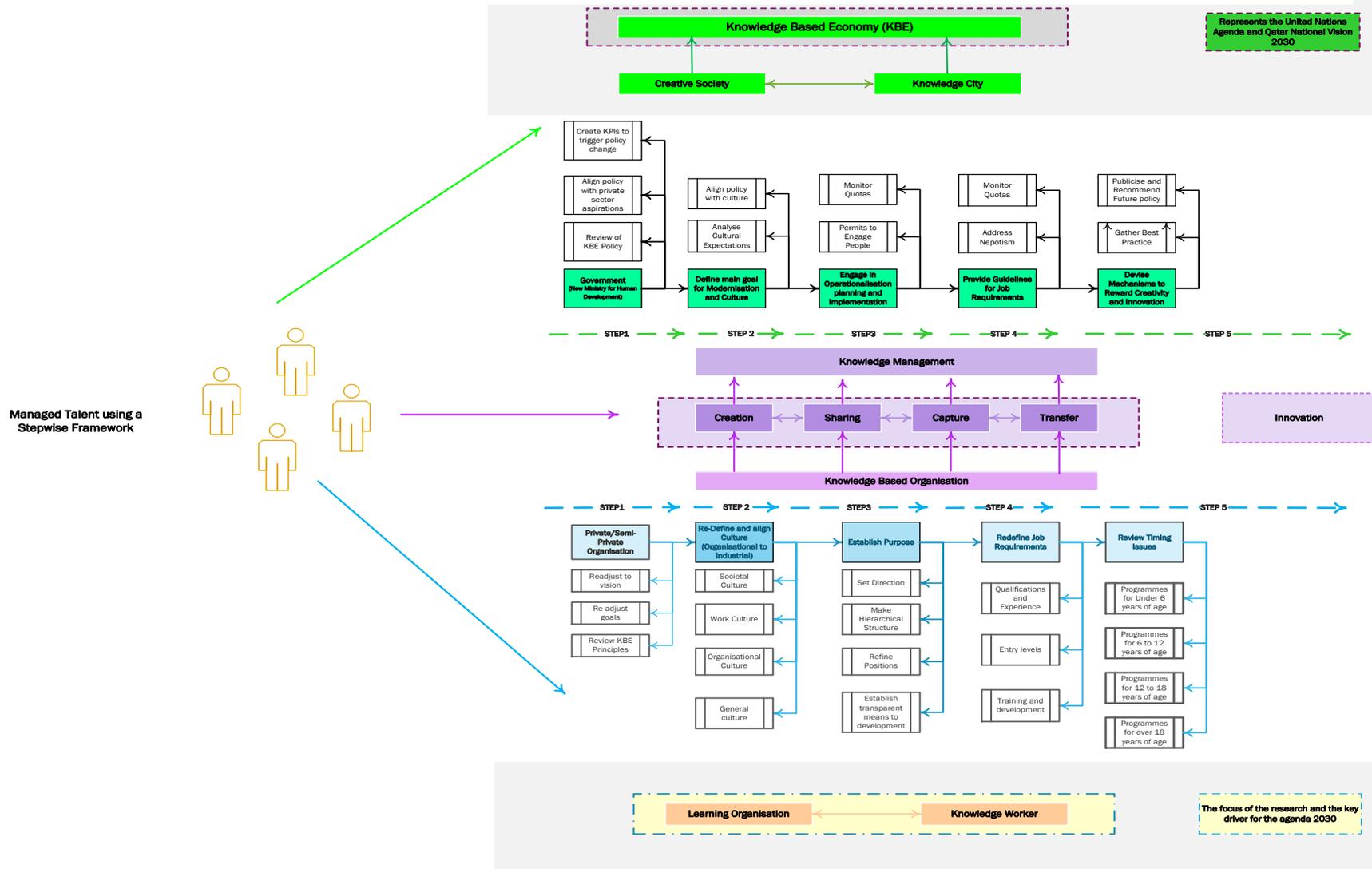
Horizontal Layer 1: The starting point for the framework in Figure 10-2 has been ‘talent’, as can be seen by the four actors shown in Figure 10-2 based on unified modelling language (UML). There are three arrows radiating from the ‘talent’ section. The bottom line indicates the horizontal level of the interaction between a knowledge worker and the knowledge organisation. This shows that the core value of the framework has been presumed to ensure that organisations can understand the key role of a knowledge worker deployed in a learning organisation. Without this interaction, the KBE would not be realisable.

Horizontal Layer 2: This focuses on the middle arrow, which emphasises appreciation of the knowledge-based organisation that applies knowledge management through knowledge creation, sharing, capture, and transfer. This is an intangible horizontal layer, but if it is well managed it can foster innovation; if not well managed, it can stifle the sharing of knowledge in organisations. This was

potentially the case where respondents argued that knowledge from expatriate workers was not being shared, captured and/or transferred in any format. The incremental requirement, therefore, is that organisations manage horizontal layer 1 before they can embark on horizontal 2.

Horizontal Layer 3: This follows on the previous two steps whereby the focus of the organisations could be that actors (talent) can be exposed to the Vision 2030 policy, as promoted by the government and the leadership of the nation of Qatar. Notice that the policy from the government focuses on the Vision 2030 as a policy, therefore the researcher observed that there was a need for organisational strategists – leaders – to bring out the link between organisational goals and align them with national goals. By doing so, it has been envisaged that the framework would allow organisations to link their strategies to those of the nation and be able to find ways to actualise the Vision.

Figure 10-2: Advisory Framework for Talent Management in Support of the 2030 Vision for a Knowledge-Based Economy



There are five vertical steps to be taken if the framework is to be applied to the KBE vision in Qatar:

- **Step 1:** Conduct a detailed review of the government's policies on human development, as inspired by the QNV 2030. Key policies and performance indicators must be established at the organisational level. The performance indicators can be useful to measure the level of improvement.
- **Step 2:** Revisit issues of culture at the organisational level to ensure that elements of bias and nepotism could be rooted out of the talent management process so that the right people can be allocated to the right posts. From the government's part, they would need to look at revising their influential strategies, which can allow for the modernisation of cultural tendencies without breaking the strong cultural views of society.
- **Step 3:** Establish the operationalisation elements of the Vision 2030 and talent management. This could mean providing detailed plans of the selection of individuals as well as providing implementation plans. The idea would be to move from policy to actual processes of implementation in producing a knowledge worker.
- **Step 4:** Redefine job requirements – this research has gathered information showing that many organisations have filled positions with particular individuals who are unsuitable. If possible, there is a need to establish and redefine the roles that will be focusing on the KBE and learning organisations.
- **Step 5:** Invest in training and education in order to allow graduates to gather the necessary experience in the workplace. While the education sector takes care of the academic side of things, information from the research shows that experience has been valued, hence training programmes would need to be reviewed for organisations to operate in a KBE.

These five steps need not be done sequentially; however, they need to be implemented with the horizontal layers in view, otherwise there could no integration of the organisational layers or implementation of the Vision 2030 for talent management in a KBE for Qatar.

10.8 Validation and Refinement of Findings

Based on the data analysis (qualitative and quantitative), the researcher developed a framework to facilitate the implementation of the Qatar National Vision (QNV 2030). The framework proposes the development of talented Qataris (knowledge entities) as an engine to

sustain the Qatari economy. An integration effort from the government, industry and people themselves should coordinate and understand their role in maintaining Qatar’s economic strategic position within the international community and assure a better lifestyle for Qatari citizens. The research proposed a framework that is an expansion of the ISM model. To verify and confirm the framework, the researcher conducted interviews with experts who have interests, knowledge and experience in the aim of this research. Four interviewees were engaged in the validation exercise, as shown in Table 10-2.

Table 10-2: Respondents Used in the Validation of the Framework

M1	Minister	Ministry of Development Planning and Statistics
M2	Minister	Minister of Administrative Development and Labour and Social Affairs Member
M3	Board Member	Qatar Leadership Centre
M4	Board Member	Ministry of Economy and Commerce

- (i) The participants were asked whether the Framework reflects a practical implementation of the Vision through the development of Qatar.
- (ii) In addition, the participants were invited to add any missing elements and suggest ways of improvement for the framework.
- (iii) Finally, they were asked how the framework can be made useful for the economy in assisting the development of Qatari talent to sustain economic growth.

The findings were presented in three themes, as follows: talent development as the main driver and their relationships; industry roles; and the practicality of the framework. The ISM model was found to represent the main drivers for the KBE and the influential inter-relationships between each driver. Expert involvement helped to verify the relationships and to suggest any missing drivers that may have an impact on the framework.

Validation of The Framework: the following quotes are responses from the ministers involved in, and responding to, the framework validation.

M1: *“It is a comprehensive framework, that integrates the main three pillars of development, industry, people and the government... The administrative development is the corner stone*

and an urgent demand of the Qatar development agenda that requires utilization of talented highly-skilled people.”

M2: *“It is interesting that the framework integrates all of the drivers and the main players in high level of framework”*

M3: *“Totally agree that the economic development is centred on managing talented Qataris, and the industrial community fails to develop a methodology to utilize the intellectual capital as economical assets... The Emir recognizes the importance of talent development and creating knowledge by taking the initiative to establish Qatar Leadership Centre, in support of the development goals of Qatar.”*

M4: *“Qatar puts tremendous effort into revitalising its non-hydrocarbon activities; due to the steep fall in the oil price, there will be a fiscal deficit in 2016. The proposed framework is an ideal starting point to brainstorm the possible actors and drivers of the new economy and try to overcome the challenges that hinder economic development.”*

Missing Elements of the Framework

The four experts did not suggest any missing drivers from the proposed framework. However, they agreed that industries are experiencing difficulties in providing a methodology or plan of how would they might achieve the developmental goals as part of the economy. They have also failed to address talent development as part of the business and the core of any economic development. The absence of talent management or human development threatens the government’s developmental plan. However, the framework that has resulted from this research could act as a starting point.

Application of the Framework to the Industry

M1: *“The framework indicates [that] human development is the heart of competitive advantage that no one would deny. It is for the government to take the initiative and develop a strategy to develop local Qataris”.*

M2: *“Working with the organisation to define the challenges that confronting achieving the national vision.”*

M3: *“Studying employee’s behaviour and challenges and investing in people knowledge through training and education to adapt self-learning to be able to create knowledge to revitalize the economy.”*

M4: *“Investing in innovation and creativity by providing the infrastructure for knowledge-based economy”*.

It can therefore be argued that the framework was validated by experts in that they recommend that Qatari industry take the framework on board and expand it to suit their needs and practices.

11 CHAPTER ELEVEN: CONCLUSIONS AND RECOMMENDATIONS

11.1 Introduction

Human development is the cornerstone of a knowledge-based economy. His Highness Sheikh Tamim bin Hamad Al-Thani, Emir of the State of Qatar, established the Qatar Leadership Center (QLC) and the Ministry of Administrative Development in 2014 to respond to the aspirations of the Qatar National Vision 2030. The QNV 2030 aspires for the State of Qatar to reach the ranks of developed countries and foster human development to grow the population of Qatar and build a vibrant community, dominated by economic and social justice, while safeguarding the environment providing a decent standard of living for residents, for generation after generation. The Ministry of Administrative Development carries out the following duties: overseeing the implementation of the law governing human resources; developing human resources policies, including nationalisation; following up on their implementation after their adoption; studying the proposed organisational structures of government agencies; reviewing and developing working systems in government agencies; providing technical assistance in modernising and simplifying human resources procedures and applying quality standards to corporate performance; developing the efficiency of the state's administration; and finally training national staff and rehabilitating those who hold jobs that are not commensurate with their academic qualifications.

The development of a strategic framework that could be used to promote and make progress towards the Vision 2030 for Qatar requires the integration of information gathered from literature as well as primary sources. This information is vital to establish an advisory framework that both public and private organisations can utilise in their day-to-day strategic plans. This chapter summarises and explains the conclusions of this research and provides some recommendations for further study. It also reviews the aims and objectives of the research, and provides a summary of the outcome of the research in the form of its contribution to knowledge.

11.2 Conclusions

The following conclusions from this research made possible the development of a framework for talent management to support Qatar's 2030 Vision for a knowledge-based economy:

- (i) The research has shown that, within the Qatari society, socio-cultural and religious beliefs are considered critical to the fabric of life, such that the economic performance of individuals, organisations and the wider economy are directly linked to these values. These shared beliefs have inspired local Qataris to develop a set of common goals that could be useful for the nation, both now and in the future, implying that the unity achievable through social, cultural and religious media has spill-over effects into other factors.
 - a. This is a positive attribute within Qatari society; however, it has been observed that it can be counterproductive to improving productivity and developing a learning culture within organisations. This is because striving for the common good makes rebuking poor performance difficult.
- (ii) The research found that ordinarily, many highly qualified local Qataris would take up strategic positions and be able to drive the economy towards a KBE, as per the vision of the ruler. However, the cultural norms of Qataris were identified with the issues of tribalism and favouritism based on clans and tribes within their lineage of birth. This factor was found to be detrimental to the development of talent because it fosters the placement of wrong local Qataris in strategic positions where they fail to execute their anticipated duties, either due to being unqualified for the role or having insufficient experience.
 - a. The response from the primary data could lead to the conclusion that resources are not properly deployed and that finding the right workers can be hindered by a deliberate culture of nepotism; in such a case, unqualified people could be found working in strategic positions. This creates a threat to the process of implementing the Vision 2030 because if key decision makers are not qualified to understand the strategic nature of the Vision, they cannot be expected to implement it to the full.
- (iii) It can be concluded that the national leadership initiated the Vision 2030 to steer the nation towards a futuristic, environmentally friendly economy that did not rely heavily on the hydrocarbon industry, as was the case at the regional level. The policy, therefore, has been recognised by respondents as one that has been effective and

sophisticated in protecting environmental institutions that build and strengthen public awareness about environmental protection, and encouraging the use of environmentally sound technologies. It has also invested heavily in education systems to prepare leaders for the future to create alternative economic resources rather than oil and gas, and in fostering fair working environments that are not based on connections and clans.

- (iv) Even though the realisation of the Vision 2030 was visible, the operationalisation thereof was non-existent because economic activities are firmly related to current means of survival and profitability, as opposed to making sacrifices and strategic positioning for the future (namely, beyond 2030). This shows that there is a clear contradiction between the perception of the Vision by organisations within the economy and that of the national leadership. At the organisational level, the 2030 Vision has been interpreted as a vehicle to identify immediate benefits that outweigh futuristic aspirations; by contrast, the national leadership feel that the Vision 2030 is a vehicle to bring about future economic success.
 - a. The contradictory perception of the Vision 2030 has stifled the creation of a mechanism that could be used to operationalise the national policy to strategise goals that could drive economic production, and eventually a KBE. It can therefore be argued that the Vision 2030 is seen as a policy document that has not yet been embedded in the strategic operations of many organisations such that the implementation has been challenging.
- (v) It can be concluded that organisations have experienced strategic challenges with the Vision 2030 as a policy; it has not permeated the key decision-making branches of organisations to take a firm hold within the economy. The response also shows that fundamental elements of building the KBE vision have not been addressed at the organisational level, even though the policy may have addressed many issues at the national level. Factors, such as human development, experience, trust, organisational scope and employee behaviour, are fundamental to a knowledge-based organisation operating in a knowledge-based economy. However, such attributes are not as seen as possible in organisations because they need not be developed or experienced before an individual is allocated a senior position by virtue of being Qatari;
 - a. There was a perception that having a large expatriate workforce had a negative impact on the actualisation of the Vision because expert knowledge was not

easily shared; there were highly bureaucratic processes and had decision-making processes that slow down learning progress. It was also observed that there is widespread mistrust of expatriate workers; for instance, the implementation of exit visas as well as visa restrictions for changing jobs has led to a situation where knowledgeable workers, such as expatriates, cannot speak up if incorrect decisions are taken for fear of getting fired. As a result, expertise embedded in the expatriate community has a short-term focus with such workers solely wanting to keep their jobs, not caring about the future of the country, and therefore not trying to improve things. Respondents felt that there needs to be more trust between Qataris and expatriate workers.

- (vi) The argument from those who disagreed was that currently the focus is on how people wish to benefit from the hierarchy of management; this kind of attitude gives no assurance that there can be a workforce ready to ensure that a transformation can be supported. A large number of respondents skipped this question, which is potentially an indication that the sample perceived the transformation of the economy as an issue that they could avoid commenting on.

Knowledge – Creation and Sharing

- (i) It can be concluded that there was a noticeably high level of knowledge creation and sharing at the organisational level, although a small number of respondents indicated that they were not sure if there was knowledge creation and sharing in their workplace. However, the issue of linking the hierarchical management structure to the benefits obtained from the organisation meant that the wrong people were highly likely to be developed or promoted rather than those with the knowledge and capability to develop a learning organisation;
- (ii) Respondents felt that there was organisational learning; however, it was not visible in many others who were doubtful or rejected the supposition that their organisation promoted learning. This contradiction shows that creation of knowledge has been evidenced in many organisations but sharing it in order to learn from the knowledge could require further improvement;
- (iii) Similarly, it can be concluded that there was a clear realisation that knowledge was vital for the overall competitiveness of the country as an economy, and that the way the economy has been set up would lead to competitiveness if it

functioned on knowledge as opposed to old way of structuring productivity for the purpose of profitability alone.

Knowledge - Talent Development and Retention

- (i) There was no clear strategy for organisations to retain knowledge; without a strategy, all other things were not optimised to the benefit of the economy. There was also a perception that talent was not a significant hindrance because organisations can attract the best people around the world, even if there is high employee turnover. However, if human resource practices were receptive to knowledge creation, sharing and retention, more could be achieved at the organisational level. The challenges of achieving this are considerable because Qatari society is perceived to be heavily materialistic and hard work is not part of the fabric of the workforce.
- (ii) This research found that local Qataris believe that expatriate workers have been essential to the evolution of the country's knowledge-based economic principles such that if the expatriates do not facilitate the knowledge sharing, it can be difficult for the locals to develop their talent and a knowledge-based economy. This is because expatriate workers are dealers in knowledge, and as such, could facilitate the KBE if they were managed well;
 - a. Expatriates bring knowledge and experience to the KBE, which cannot be substituted even though they could be considered difficult to retain within organisations.
- (iii) Many interviewees believed that capturing knowledge from organisational operations is an important part of capturing data and knowledge, which can then be passed on to the industry at large, and that the talent of an organisation plays a pivotal role. However, a similarly large number of respondents did not believe that the capturing knowledge and information at the organisational level could be useful to the creation of a knowledge economy, meaning that their focus was merely on competitiveness for the moment, and not the future;

Organisational Leadership and Human Development

- (i) The research concludes that the human resources practices and policies/strategies that organisations have adopted have been considered critical to a positive impact on knowledge; however, many organisations are unstable and have no leadership direction or overarching business strategy for employees to follow. Currently there was no evidence of planned human development strategies in organisations specifically tailored to the creation of a KBE;
 - a. Human capital has been seen as an essential element for the Qatari economy to be transformed from carbon- to knowledge-based; however, the Vision 2030 did not influence the human development decisions at the organisational level.
- (ii) The research concludes that there was a culture of ‘entitlement’ or a ‘happy comfort zone’ culture, meaning that organisations were finding it difficult to motivate local Qataris to undertake key human developmental goals. This was seen to be a leadership challenge for those chief executive officers that resorted to merely allocating high positions to local people but did not design developmental goals for the workers;
- (iii) The research found that there was a high level of recognition for the fact that leadership, teamwork, innovation, and creativity are critical attributes that individuals and their organisations must demonstrate if they are to be placed on talent management programmes in their organisation. However, it can be difficult to see how disinterested local people could demonstrate leadership, innovation and creativity in the workplace in order for their company to place them on such programmes.

Talent Management

- (i) It can be concluded that there was a genuine perception that the vision to transform the Qatari economy into a KBE was capable of being implemented at the organisational level; however, very few organisations had earmarked talent development programmes for local Qataris to ensure that they could attain the level needed to maximise the use of knowledge in their portfolios;
- (ii) It can be concluded that local organisations have not been investing in the development of local talent. This perception contradicts the view that human resource development is viewed as critical to the competitiveness of an economy.

Thus, the implication is that, while there is recognition of the importance of human resources development, there appears to have been very little action at the organisational level in terms of implementing programmes related to talent management;

- (iii) The research concludes that leadership synergies at the organisational and national levels have been critical to the development of local talent in Qatar;
 - a. There was a clear understanding that there was a link between the development of talent and the growth of a knowledge-based economy, nurtured by the former; this would eventually lead to the achievement of the QNV 2030. The realisation of this fact was inescapable but the implementation of the development process was not in sync with the realisation.
- (iv) Even though organisations had human resources personnel working at various human resource sections and operating at varied levels of management, no detailed plans or strategies had been developed to implement the QNV 2030 and promote the development of local Qataris.
 - a. It can therefore be argued that there has been a mismatch between the aspirations of the QNV 2030 and actual practice at the industry level.
- (v) It can be concluded that overall talent identification has not been widely practiced at the industry level in Qatar. There has been no identifiable programme that could be associated with a specific strategy aimed at developing workers into future key talent for their respective organisations;
- (vi) There was therefore a need to work towards the QNV 2030 using a detailed framework or plan, without which it could impossible for an organisation to put in practice what the Vision was striving to achieve. Without such a framework, organisations have been left on their own to develop independent strategies for talent management and human resource development, that are not necessarily in line with the aims of the QNV 2030.

11.3 Recommendations

The following recommendations are considered to be critical for the potential success of the KBE through the Qatar National Vision 2030.

- It is essential for Qatar to have a talent development strategy to shape the foundation

of Qatar's social and economic dynamism, raise Qatari standards of living, while maintaining financial stability, and enable the country to compete in the world economy;

- This research recommends a strategy that can identify key actors and wield the necessary authority to formulate and implement policy interdependently of the Qatar National Vision and broader talent development goals;
- Incentives must be provided to encourage industry to comply with the development policy, which may drive industry to synergise their organisational strategies with the National Vision 2030;
- Effort must be put into promoting the positive elements of the process of reshaping Qatar's social foundations, which have resulted from cultural traditions, social symbols, and institutions of authority and security. There is a need to find ways to minimise nepotism, favouritism and reliance on family connections for individuals to attain higher levels of leadership influence;
- The country must invest in contemporary education;
- Justice must be administered regardless of culture and race, thereby reducing discrimination and recognising people's potential to contribute to the economy equally.
- There is a need to develop a strategic framework that can be followed at the organisational level in order to institute measures for developing local talent bases for knowledge workers.
- An administrative unit responsible for planning and development must be established to deal with the issues of the knowledge economy, and to develop policies and oversee the implementation of these in cooperation with the responsible authorities.
- A mechanism must be developed to overcome obstacles to the development of a knowledge-based economy.
- Social policies and the labour market must adapt to the needs of the knowledge-based economy.
- Incentives must be put in place that create demand for knowledge and the development of skills to encourage competition and promote entrepreneurship and help to discover talent.
- Innovation initiatives in private sectors must be encouraged, and a methodology built to share this knowledge.

- Citizens must be able to acquire new skills and capabilities.
- Experiences and developments relating to the knowledge-based economy must be shared between GCC members.
- Relationships between the public and private sectors must be strengthened by developing partnerships to foster sustainable development through research centres.
- The government is responsible for providing institutional development programmes to avoid duplication and redundancy in functions, which can be achieved by building an integrated electronic system to monitor institutional development performances for a KBE.
- Qatar must invest in research and development with leading research institutions, such as the OECD.

11.4 Further research

Further research might draw on the present study in the following ways:

- (i) Expanding the findings regarding how Qatari social factors and the education system affect the economy and organisational performance;
- (ii) Providing an assessment platform to evaluate and improve economic performance;
- (iii) Benchmarking the performance of the Qatari education system against advanced countries with KBEs.
- (iv) Investigating how investment in talent development might affect Qatar's GDP
- (v) Examining what other Gulf States within the GCC might learn from Qatari talent-management strategies when they are developed.

11.5 Limitations of the Research

This research is subject to a number of limitations that must be taken into account:

- The researcher targeted those institutions with the most influence on the knowledge-based economy: Ministry of Education (strategic department), Ministry of Development Planning and Statistics, Ministry of Administrative Development Labour and Social Affairs, Qatar Leadership Centre, Qatar Petroleum and the Qatar Foundation.
- The political transitions of the Arab spring, and the GCC's military intervention and involvement in Yemen through Operation Decisive Storm;

- Movements in the international oil price, or indeed risks of such movements, will affect GDP growth;
- Delays or cost overruns (or both) in the delivery of key infrastructure projects and a slower than anticipated pace of fiscal reforms;
- Reduction in investment due to increased fiscal deficits;
- The research was limited to the context of Qatar
- Some interviewees were reluctant to discuss the economic challenges facing Qatar as at the same time as the researcher was gathering this information, FIFA were threatening interviewees against giving information that might be used against the organisation.
- The framework was at a high level.

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12.2 Appendices

12.2.1 Appendix A: Interview Template

<u>General Information</u>	
Name of the company:	
Position/role:	
Date of interview:	
Total interview time:	
General information about the interviewee	Tell me about your work experience.
	In your opinion, what are the main factors that have influenced your success?
	Tell me about your role in this organisation? Do you find it easy or difficult? In what way? (Investigate the challenges.)
What are the current opportunities and challenges faced by Qatari organisations in the development of talent?	In your opinion, how does Qatar intend to achieve Qatar National Vision 2030?
	What are the challenges confronting the actualisation of Qatar National Vision 2030(QNV 2030)?
	What is the vision of the organisation, and how is it linked to QNV2030?
	Does your organisation have a clear strategy to achieve the goal and vision 2030?
KBE	In your opinion, how can you define Knowledge based economy?
How can talent management strategies be used as a vehicle for the implementation of Qatar 2030 vision?	What could be the factors causing local Qataris to become disinterested in taking the leading role in organisations?
	Does your organization recognise talent management as a part of its business strategy?
	In your opinion, what competencies are used to identify key talent?
	To what extent do you think your organization has identified the

	behaviors and skills needed to support the strategic objectives of your employees?
	Do you have a strategy to develop Qataris for KBE and to compete with global talent
ISM	How do you think Knowledge based economy can be influenced; in other words, what are the activities needed to facilitate achieving of knowledge based economy?

12.2.2 Appendix B: Questionnaire Template



**School of the Built Environment
Manchester, United Kingdom**

This questionnaire has been devised to facilitate a process of obtaining personal and professional opinions about talent development for knowledge base economy. The information obtained from the questionnaire survey is intended to be used in an academic research entitled: **“A FRAMEWORK FOR TALENT MANAGEMENT TO SUPPORT THE INFRASTRUCTURE FOR A KNOWLEDGE-BASED ECONOMIC VISION FOR 2030 IN QATAR”**. In November 2008 the Emir Sheikh Tamim Bin Hamad Al-Thani, Heir Apparent, launched Qatar National Vision 2030 (QNV 2030), which foresees Qatar continuing to transform into a diversified and advanced knowledge economy capable of sustaining its own development and providing a high standard of living for all its people for generations to come. OECD define knowledge-based economy as *“an expression coined to describe trends in advanced economies towards greater dependence on knowledge, information and high skill levels, and the increasing need for ready access to all of these by the business and public sectors.”* This study is academic; hence all the information provided would only be used for an academic research that forms part of the requirements for the PhD Degree in the University of Salford, Manchester, UK.

SECTION ONE: GENERAL INFORMATION ABOUT THE SAMPLED RESPONDENTS

1. **Are you:**

Qatari

Non-Qatari, but working in Qatar

2. **Are you:**

Male

Female

3. **Please state the category of your organisation:**

Government

Quasi-government

Pure private

4. **Please state the sector you work in:**

Culture, Arts and Heritage

Defence

Economy and Commerce

Endowment and Islamic Affairs

Energy and Industry (oil and gas)

Environment

Finance

Information and Communications Technology

Municipality and Urban Planning

Education

Real Estate, Construction and Engineering

Other: Click here to enter text.

5. **Highest level of academic qualification at the time of the survey:**

Doctor of Philosophy (PhD)

Master degree

Bachelor

Diploma

High school

Other: Click here to enter text.

6. Approximate length of time since the organisation was established:

- Less than 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- Over 20 years
- Other: Click here to enter text.

7. How is your organisation getting funded?

- Private investors
- The government
- International investor
- No idea
- Other: Click here to enter text.

8. Number of training you received in last one year?

- 0
- 1
- 3
- 3
- 4+

SECTION TWO: CURRENT ECONOMIC PROSPECTS BASED ON THE VISION 2030

9. Qatari Vision 2030 has been set up to drive, among other things, the development of Qataris with a view to sustaining the economy?

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

10. In your opinion, how does Qatar intend to achieve the Vision 2030? (Multiple answers)

Increasing the standard of living for Qataris

Advancing economic, human and social developments

Progressing politically

Creation of more and well-paid employment

Maintaining its cultural and traditional values as an Arab and Islamic nation

Inspiring Qatari people to develop a set of common goals related to their future

Transforming into a knowledge-based economy

Coordinating with Gulf Cooperation Council states and with Arab and regional economic organisations to establish trade, investment and financial ties

Gradually reducing its dependence on hydrocarbon industries, enhancing the role of the private sector and maintaining its competitiveness

Effective and sophisticated environmental institutions that build and strengthen public awareness about environmental protection, and encouraging the use of environmentally sound technologies

To put Qatar on the map as a leading center for research and development excellence and innovation.

Hosting world-class annual events

Other:

11. What actions is your organisation taking to achieve the Vision 2030? (Multiple answers)

Investing in employees

Empowering Qatari graduates

Higher more expatriates

Link employees performance to the organisation business strategy

Better education services

Creation of more and well-paid employment

- Encouraging employees to take up valuable training and education
- Decreasing employability
- Encouraging employees to take up valuable training and education
- Holding internal meetings to spread awareness about QNV 2030
- Creating a localisation programme (Qatarisation)
- Encouraging Qataris to take high managerial positions
- Creating and sharing knowledge
- Nothing
- Other:

12. Which challenges are confronting the actualisation of Qatar National Vision 2030 (QNV 2030) within your organisation? (Multiple answers)

- Delivering infrastructure projects on time
- Delivering infrastructure projects within budget and quality
- Top management buy-in
- Lack of awareness
- Lack of technology
- Cultural differences
- Waste and nepotism
- Right employees in wrong positions
- Trained leaders
- Full absence of holistic plans and working according to the individual operational plan
- Unqualified employees in high positions
- Smooth data interoperability and exchange
- Consistent communication and collaboration
- Lack of transparency
- Process inefficiency
- Modernisation and tradition preservation in a rapidly globalising and increasingly

interconnected world

- Managing the needs of this generation and of future generations
- Uncontrolled population expansion
- Development path and the size and quality of targeted expatriates
- Achieving consistency, compatibility and participation, and the adoption of a comprehensive institutional development and modernisation process
- Monitoring the implementation of QNV 2030
- Education, training and employment as an engine for social and economic transformation
- Absence of strong public sector institutions
- Other :

**13. What are the possible causes of these challenges referred in Question 10?
(Multiple answers)**

- Lack of experience
- Lack of training
- Lack of trust in locals' performance
- Poor communication
- Locals are not interested to take the challenge
- Lack of transparency
- Expatriates
- No clear organisational scope
- Outdated technologies
- Missing rules and regulations / standards
- Poor monitoring process
- Poor human resource development
- Top management buy-in
- Human resource department misunderstanding its role and responsibility
- Employee behaviour
- Uncontrolled population expansion

Absence of strong public sector institutions

Others:

14. Your company rely oil and gas revenues?

Doesn't rely on oil sector; Low reliance on oil sector; Medium reliance on oil sector; Highly reliant on oil sector; Extremely reliant on oil sector

15. The government should incentivise organisations to achieve Qatar National Vision 2030 (QNV 2030)?

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

16. Organisation should incentivise the employees to work towards the achievement of Qatar National Vision 2030 (QNV 2030)

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

17. You are motivated to develop yourself in the organisation to become a leader?

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

SECTION THREE: ACHIEVING A KNOWLEDGE-BASED ECONOMY

18. Local Qataris can fully support initiatives aimed at transforming Qatar's economy from one heavily reliant on oil and gas to an economy based on knowledge?

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

19. Professional practice within your organisation is keen to implementing

Knowledge management through knowledge creation and sharing

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

20. Your organisation is keen to implementing organisational learning at all management levels of the company

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

21. Knowledge based economy could be valuable for Qatar to gain competitive advantage

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

22. What are the problems related to knowledge retention?

- Lack of Information
 Knowledge walk away during employee downsizing
 Information overload.
 Lack of Knowledge retention strategy
 Reinventing the wheel.
 Loss of crucial knowledge due to a key employee leaving the organisation.
 Information and communication technology tools
 Human resource practices
 Learning culture
 Top management support
 Organisational infrastructure and measurement
 Poor sharing of knowledge in the organisation.

Others:

23. What could be the factors causing local Qataris to be disinterested in taking the leading role in their organisation and disinterested to perform or work?

24. Your organisation ignores individual knowledge and experience in favour of ICT and systems

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

25. Your organisation provide a mechanism for employees to learn from each other regardless of the management level

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

26. The industry you operate in has been fostering creativity such that organisations can benchmark best practice amongst themselves

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

27. The reliance on knowledge could be valuable for Qatar to gain competitive advantage

Strongly disagree; Disagree; Neither agree nor disagree; Agree;

Strongly agree

28. How can the dependence on knowledge be supported in your organisation?

(Multiple answers)

- Leadership
- Business model
- Policy and strategy
- Infrastructure
- ICT
- Society
- Environment
- Culture
- Human resource development
- Others:

29. Rate the importance of the listed factors to support the achievement of a knowledge-based economy in Qatar

	Very Low (1)	Low (2)	Moderate (3)	High (4)	Very High (5)
Leadership	<input type="checkbox"/>				
Top management	<input type="checkbox"/>				
Infrastructure	<input type="checkbox"/>				
Human Capital (Education & Training)	<input type="checkbox"/>				
Innovation & Research	<input type="checkbox"/>				
Incentives	<input type="checkbox"/>				
Culture	<input type="checkbox"/>				
Vision & Strategy	<input type="checkbox"/>				
ICT	<input type="checkbox"/>				

30. Qatar cities are designed to support a sustainable economy

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

31. The culture in your organisation allows for creating knowledge

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

32. Leadership and authority are available to support the scope of the Qatar national Vision 2030

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

33. New technology plays a supporting role in the Vision 2030

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

34. Your organisation creates knowledge that is worth capturing and sharing within the economy

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

SECTION FOUR: TALENT MANAGEMENT STRATEGIES THAT SUPPORT ORGANISATIONAL LEARNING

35. What is your position in your organisation?

- Higher Management / CEO
 Director

- Project Manager
- Strategic Manager
- HR Manager
- Talent Manager
- Engineer
- Trainee
- Other:

Notice: this section is only for CEO, DIRECTOR, STRATEGIC MANAGERS, EXPERTS AND ACADIMICS.

36. Human resource development could be valuable for Qatar to gain competitive advantage

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
- Strongly agree

37. Qatari organisations do not use “talent management” in nurturing and developing local talent?

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
- Strongly agree

38. What competencies are used to identify key talent?

- Leadership
- Innovation / creativity
- Communication
- Teamwork
- Job expertise / skills
- Delivery of tasks
- Positive energy / attitude

- Motivation / passion
- Commitment to mission
- Customer focus
- Integrity
- Dedication / dependability
- Flexibility
- Potential for growth and development
- Work ethics
- Decision-making
- Strategy execution

39. **Qatari organisations do not recognise “intellectual capital” as a local asset base?**

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
- Strongly agree

40. **Qatari organisations feel that the responsibility of identifying local talent lies with:**

- The government
- Leadership / top management
- Human resource department
- Line manager
- Yourself
- The legislative

41. To what extent do you think your organisation has identified the behavior and skills needed to support your strategic objectives for the following:

	Very low	Low	Moderate	High	Very high
	(1)	(2)	(3)	(4)	(5)
Leadership / executive team	<input type="checkbox"/>				
Middle / line management	<input type="checkbox"/>				
High potentials	<input type="checkbox"/>				
Engineers	<input type="checkbox"/>				
Graduates	<input type="checkbox"/>				
Administrative	<input type="checkbox"/>				

42. Talent management is important to having a knowledge- based economy that supports Qatar National Vision 2030

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

43. Your organisation have a human resource development (HRD) strategy

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

44. Your organisation pick people to develop as future talent for the company

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

45. Your organisation have a talent identification programme

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

46. Your organisation have a strategy to develop their talent

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

47. A framework or plan is required to run the business for Knowledge Based Economy (KBE)

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

48. Your organisational strategy motivate the workforce for the Vision 2030

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

49. Talent management could lead your organisation achieving the Vision 2030

- Strongly disagree; Disagree; Neither agree nor disagree; Agree;
 Strongly agree

50. What would be your personal wish or recommendation towards Qatar's authorities to implement Qatar National Vision 2030 in Knowledge based economy?

Thank you for participating in the survey.

Ms Fatima AL Mohannadi

PhD Student

12.2.3 Appendix C: Ethical Approval Form



**Academic Audit and Governance Committee
College of Science and Technology Research Ethics Panel
(CST)**

To **Fatima Al Mohannadi (and Prof Mohammed Arif)**

cc: **Professor Hisham Elkadi, Head of School of SOBE**

MEMORANDUM

From **Nathalie Audren Howarth, College Research Support Officer**

Date **21/11/2014**

Subject: **Approval of your Project by CST**

Project Title: **A ROADMAP FOR TALENT MANAGEMENT TO SUPPORT
INFRASTRUCTURE FOR KNOWLEDGE BASED ECONOMIC
VISION FOR 2030 IN QATAR**

REP Reference: **CST 14/43**

Following your responses to the Panel's queries, based on the information you provided, I can confirm that they have no objections on ethical grounds to your project.

If there are any changes to the project and/or its methodology, please inform the Panel as soon as possible.

Regards,

A handwritten signature in black ink, appearing to read 'N. Audren', with a long, sweeping underline that extends to the right.

Nathalie Audren Howarth
College Research Support Officer

12.2.4 Appendix D: Information Sheet and Consent Form

UNIVERSITY OF SALFORD

School of the Built Environment

Manchester, United Kingdom

RESEARCH PARTICIPANT INFORMATION SHEET AND REQUEST FOR CONSENT

You are cordially requested to take part in the research project entitled: A FRAMEWORK FOR TALENT MANAGEMENT TO SUPPORT INFRASTRUCTURE FOR KNOWLEDGE BASED ECONOMIC VISION FOR 2030 IN QATAR.

However, before consenting to participating in the research the following information has been designed to explain the reason for the research and the importance of the research.

This research exercise is academic and any information that is sought will only be used for academic purposes. The information will only be used in academic publications such as the dissertation to be submitted as part of the requirements for the Doctor of Philosophy (PhD) Degree of the University of Salford, Manchester, UK.

INFORMATION ABOUT THE RESEARCH

The main focus of the research is to develop a framework to guide Qatari industries toward achieving Qatar National Vision (QNV 2030) for transitioning of the Qatari economy to a knowledge based one through the enhancement of capable Qatari talent, who are the corner stone of the county growth.

The objectives of the research are as follows:

- i. To evaluate the current perception of a knowledge based economy in Qatar;
- ii. To examine the level of learning (and unlearning) critical to the development of a knowledge based economy;
- iii. To critically evaluate talent management (TMS) for knowledge based economy in Qatar;
- iv. To identify and critically assess factors necessary for implementing talent management in knowledge based organizations in Qatar;

- v. To conceptualise a framework for the implementation of talent management for knowledge economy in Qatar;

Why this research is important for the construction industry of Qatar?

For Qatar to realise the 2030 vision there should be massive investment in human development for local Qataris. Much as the current levels of investment in education could suffice, there is still a gap in the number of Qataris taking up strategic positions so as to influence the transition of the economy from hydrocarbon to knowledge based. As a result, talent management is cardinal to the success of the 2030 vision. However, unless current practices in the management of talent can be ascertained future management practice could be ineffective hence stifling the fulfilment of the 2030 vision.

REQUIRED LEVEL OF PARTICIPATION FROM RESPONDENTS

You are therefore cordially invited to take part in the research because your participation is extremely vital to this research. It is the surest way of gathering opinions about the talent management practice which will lead to understanding current practice in Qatar

Is it mandatory to take part? It is not mandatory that you take part in the research; all participation is on a voluntary basis. All personal information will not be needed when you participate so that there is a high level of anonymity and confidentiality in the response mechanisms.

Could you opt out in the future? You do not need permission to withdraw your consent at any point in time and that you will not face any consequences what so ever.

What about your consent? Your participation requires consent so that your opinion can be used in the research exercise. When you consent you will be directed to access an online link to the questionnaire. The questionnaire does not require any personal information; therefore, your anonymity is assured.

How will you participate? The following process explains your participation

- i. After consent you will be sent a link from where you can access the questionnaire. If you do not consent, please ignore the link to the questionnaire.
- ii. The link to the questionnaire will be sent to those that consent to participation
- iii. There will be no need for you to provide personal information on the questionnaire; this has not been provided for
- iv. There will be no costs required for filling in the questionnaire online.

CONSENT FORM

Research Title: A FRAMEWORK FOR TALENT MANAGEMENT TO SUPPORT INFRASTRUCTURE FOR KNOWLEDGE BASED ECONOMIC VISION FOR 2030 IN QATAR.

- I. Confirm that you have clearly understood the contents of the information sheet herewith attached

- II. Confirm that you have understood the procedure for the research

- III. Confirm that your participation is voluntary and can be withdrawn anytime without incurring any consequences:

- IV. Confirm that you understand that the information you will provide will be used for academic purposes such as research publications

- V. Having read the above points, I consent to the participation in this research

Date: [Click here to enter a date.](#)

Signature: