

**An Exploration of Organisational Elements on Social Media
Platforms Based Knowledge Sharing of Higher Education
Institutions (HEIs) in Malaysia.**

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DECLARATION

I certify that this thesis has been written by me and is my own work except where stated otherwise. I further declare that it has not been submitted for any other degree or professional qualification.

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LIST OF ABBREVIATIONS

AAD	American Associate Degree
AIM	Akademi Infotech MARA
COVID- 19	Coronavirus
HEIs	Higher Education Institutions
ICT	Information Communication and Technology
IT	Information Technology
1U2S	1 University 2 System
KYPM	Kolej Yayasan Pelajaran MARA
KM	Knowledge Management
MHEIs	Malaysian Higher Education Institutions
MOHE	Ministry of Higher Education
RSS	Really Simple Syndication
WWW	World Wide Web

ABSTRACT

Knowledge sharing is an important aspect of the life of many organisations, especially academic institutions, in terms of their competitiveness and longer-term survival. However, to ensure the success of knowledge sharing within Higher Education Institutes (HEIs), there is a need to understand the role of knowledge sharing activities in the life of these communities. Social media platforms have emerged as important forums for locating, connecting, collaborating and sharing ideas among the individuals. Nevertheless, despite its importance, there is only limited research that has addressed the role of social media platforms in facilitating knowledge sharing between academic staff. Thus, the purpose of this study is to investigate the organisational elements which influence the social media platforms-based knowledge sharing between academic staff within the context of Malaysian HEIs.

The research adopted a qualitative approach to obtain an in-depth understanding of the subject matter. Data was gathered from thirty-two academic staff members from two public universities and two private universities. A semi-structured interview was the primary method of data collection, and the data was supplemented by documentation.

The findings of this study resulted in the identification of seven key themes, namely, organisational structure, technology infrastructure, organisational strategy, organisational culture, management support, people and skills which all need to be taken into consideration as influential elements for social media platforms based knowledge sharing. Each of these themes and corresponding subthemes were found to have varying impacts on the sharing of knowledge.

The key findings indicated that some of the organisational elements influenced the participants in their use of social media platforms for knowledge sharing. The findings show that the organisational strategy, reward and organisational culture elements were identified as of prime importance in contributing to participants' use of social media platforms in knowledge sharing. The use of social media platforms for sharing knowledge was perceived as offering participants a means for collaboration by networking, sharing expertise, creating a mutual understanding in the area of interests and disseminating the research or teaching experience of participants with other academic staff within the organisation. Social media platforms were perceived as creating openness and willingness to share useful knowledge and experiences

CHAPTER 1 INTRODUCTION

1.1 Introduction

In this introductory chapter, the rationale for this study is presented followed by a statement of the aim, objectives, research questions and scope of the research. Additionally, the research methodology underlying the research is highlighted, the expected contributions of this study are stated and, finally, the structure of the thesis is outlined.

1.2 Background of the study

Currently, knowledge is considered to be a valuable resource for organisations and individuals. However, access to knowledge is an important consideration, especially in terms of the appropriate knowledge for the right people and at the right time and place. For that reason, knowledge could be considered as a resource which requires management (Dhamdhare, 2015).

Knowledge can be acquired from various sources and is available in various forms such as books, modules, circular letters, minutes of meetings and from other sources. Moreover, knowledge can also be gained from databases, search engines and other repositories but could also be in the mind of a person (Yassin, Salim & Sahari, 2013). Therefore, as knowledge can be found in various forms and at various places, it is a necessity for organisations to manage their knowledge effectively and efficiently in order to maintain their competitiveness.

Knowledge management refers to the various processes of knowledge acquisition, creation, transfer, sharing and utilisation that are used to derive the optimum benefit from an individual's or an organisation's resources of knowledge (Massaro, Dumay & Garlatti, 2015). In recent years, many organisations have given significant attention to the innovative developments which draw on the appropriate management of their resources of knowledge which has the potential to give the organisation an advantage over their competitors.

One important aspect of knowledge management, which has been the focus of much attention is knowledge sharing. Hendriks (1999) has noted that knowledge sharing involves the interrelation between the individual, who possesses knowledge and the organisation, which can provide the means whereby this knowledge can be utilised for the greater benefit of the organisation in terms of its competitiveness.

A review of literature has shown that knowledge sharing is the most important element in knowledge management because, without sharing, no prior knowledge can be retained and no new knowledge can be created (Ramayah, Yeap & Ignatius, 2014; Sohail & Daud, 2009; Yassin et al., 2013). It could refer to all types of knowledge, including explicit knowledge, 'knowhow' and 'know-who' and tacit knowledge in the form of expertise and competence.

This statement is supported by Fauzi, Nya-Ling, Thurasamy, and Ojo (2018) who define the sharing of knowledge as a process by which individuals exchange knowledge, either tacit or explicit, to generate and create new knowledge. Knowledge sharing could be a unique process because, although knowledge is shared with another individual, it still belongs to the original owner (Yassin et al., 2013). Sohail and Daud (2009) define knowledge sharing as an activity directed towards the exchange experiences, events, thoughts or understanding about something in order to obtain or build knowledge. It also depends on the willingness or ability of an individual who has the knowledge resources to contribute to the exchange of knowledge with another individual (Alias, Abbas & Nordin, 2016).

In the context of this research, knowledge sharing is a process of exchanging and understanding either tacit or explicit knowledge not only to an individual but to large groups of people either through printed or non-printed material which helps to create new knowledge.

Current trends in Higher Education Institutes (HEIs) include the expectation that academic staff members would be willing to move from a knowledge hoarding model of the institute towards an institute based on knowledge sharing (Fauzi, Nya-Ling, et al., 2018). Javaid, Soroya, and Mahmood (2020) stated that knowledge could be a basic asset for HEIs as in business organisations. Knowledge sharing has become an important and interesting concept in organisations, especially in HEIs where knowledge is created, acquired and disseminated. This paradigm shift is founded on the conviction that knowledge sharing in HEIs as it is crucial for the creation and dissemination of new knowledge, the quality of which adds value to the institute's existing knowledge base and scholarship. Furthermore, such sharing of knowledge between academic staff members necessarily includes the formation of interpersonal relationships as well as enhancing the education of future generations. The findings of Nordin, Daud, and Osman (2012) add support to this view as well as pointing to the benefit of informed decision making on the basis of knowledge sharing. Other benefits of constructive knowledge sharing include the reduction of management costs, enhanced academic performance and the development of productive and fruitful research (Yassin, Sahari & Salim, 2011).

The development of internet technology has changed the ways in which people communicate with each other. The ‘World Wide Web’ (WWW) has created new mechanisms for knowledge sharing, which includes the various platforms of social media which have impacted on people’s everyday life including in research and knowledge sharing. Authors such as Ali Ahmed, Ahmad, Ahmad, and Zakaria (2018) have commended social media platforms for enabling knowledge sharing and communication, not only between individuals but also between institutions.

Social media platforms include a wide range of online media, such as Social Networking (SNS), for example, Myspace and Facebook, microblogs such as personal blogs or Twitter, pictures or video-sharing applications (Ahmed, 2018; Kaplan & Haenlein, 2010; Osatuyi, 2013). These types of social media platforms are considered to be important and well-established channels for facilitating knowledge sharing, where people are able to find other individuals with similar interests, and share their thoughts with them (Bilgihan, Barreda, Okumus & Nusair, 2016). It is contended that the content of social media platforms is rich in quality as it embraces the wisdom of the crowds (Anari, Asemi, Asemi & Bakar, 2013). The knowledge that is created is of high quality as it combines diverse experiences and insights from people across the globe from different cultures (Ghazali, Sulaiman, Zabidi, Omar & Alias, 2016).

At present, social media platforms have shifted beyond personal purposes and use. It have been increasingly accepted by organisations as methods for knowledge sharing and communication by various different means (Alshahrani & Pennington Rasmussen, 2018; Hung & Cheng, 2013). Some organisations, including those in the public sector, are exploring and discovering the ways social media platforms can be used for knowledge sharing, as a way of enriching citizens’ awareness, providing quality services and the actions of governments (Dekker & Bekkers, 2015). Social media platforms have the potential to play an important role in the creation of knowledge sharing activities as it provides a platform for people to engage in activities such as posting questions and answers, discussions, messaging, story-telling as well as sharing experiences (Nordin et al., 2012).

Social media platforms will have an important impact on future investments of HEIs in relation to knowledge sharing (Ali Ahmed et al., 2018). HEIs have increasingly started to use social media platforms. Knowledge shared in blogs in which technical and organisational problems are discussed, documents sharing and wikis for which content is formed, applications for which

project management is performed and links requiring solutions and expertise are among such social media platforms.

In the creation of new knowledge, knowledge sharing, whereby individuals share their knowledge with one another, now plays an important role within institutions (Nonaka, 2008). However, the knowledge which is shared should be of such quality as to add value to the organisation (Saad & Haron, 2013). Knowledge sharing between individuals can be viewed as a form of social interaction in which individuals participate. However, such knowledge sharing, if it is to be effective in improving the quality of operations, informed decision-making, problem solving and the development of highly skilled employees, needs to be effectively managed Asunka (2018). Thus, knowledge has emerged, in recent years, as an important dimension of strategic management, innovation, information systems in most organisations (Mohamad, Manning & Tatnall, 2012).

In recent years, knowledge sharing has been considered as a key element for the survival and success of an organisation (Islam, Anis & Abdullah, 2015; Nonaka & Ichijo, 2007; Saad, 2013) particularly for an academic institution (Syed-Ikhsan & Rowland, 2004). This is particularly true of HEIs (Saad & Haron, 2013). HEIs are knowledge-intensive environments, within which the sharing of knowledge is even more important than in other organisations (Al-Rahmi, Alias, Othman, Marin & Tur, 2018; Fullwood, Rowley & Delbridge, 2013), as is obviously the case for teaching and learning (Al-Husseini & Elbeltagi, 2015). For example, knowledge sharing within HEIs is crucial for team building (Chen & Hsieh, 2015) and shared knowledge and experience between colleagues (Ramayah et al., 2014)

1.3 Research Problem

This study is instigated by the central research problem which stems from the pivotal role played by academic staff and HEIs in both knowledge sharing and the use of social media platforms in this endeavour. Because an individual academic staff member possesses knowledge which is of value to the institution it does not follow that that individual would voluntarily share this knowledge without some incentive to do so (Argote, 2012, p. 105). How individuals can be incentivised or motivated to share their knowledge lies at the heart of the research problem.

Individuals do not readily share knowledge in every circumstance that the organisation might expect (Yu et al., 2010). However, there are several reasons that might impede the sharing of

knowledge even when this is encouraged and desirable. One issue is that of the trust whereby individual academics might be willing to share their hard-earned knowledge with only a small number of close confidantes. Such knowledge represents intellectual property which could be used by others without attribution of the original source.

Traditionally, knowledge sharing took place among academics by means of face-to-face encounters, meetings or seminars. Some knowledge sharing also utilised printed materials. However, these modes of knowledge sharing were generally restricted to relatively small numbers of individuals

Currently, HEIs are using various information technology (IT) applications as tools for knowledge sharing (Raab, Ambos & Tallman, 2014). Manca and Ranieri (2016) added that HEIs could also use the IT tools as a means for instant communication from any location. One of the IT implements that can facilitate knowledge sharing is the social media platform (Corbeil & Corbeil, 2011; Gaál, Szabó, Obermayer-Kovács & Csepregi, 2015; Leonardi, 2017; Schutte, 2013). Other authors have also commented on social media platforms as a means for sharing knowledge (Assegaff, 2017; Asunka, 2018; Gaál et al., 2015; Ghazali et al., 2016). Social media platforms enable users to create content, and thus spread their opinions and thoughts to other users. Various applications of social media platforms support the important objectives of supporting collaboration, communication and, additionally, could be used for knowledge sharing.

Accordingly, a paradigm shift is required on the part of academics to move to knowledge sharing and adding to the use of social platforms as a means of communicating knowledge. One advantage of the use of social media platforms is that they can make the process of knowledge sharing faster and more accessible as well as being user-friendly for storage and updating (Garcia, Elbeltagi, Al-Husseini & Abdelkader, 2011). In addition, communicating through the social media platforms provides a low-cost medium of communication (Yassin et al., 2013).

Social media platforms can be described as a group of Internet-based applications that are built on the ideological and innovative foundations of Web 2.0 (Kaplan & Haenlein, 2010). Web 2.0 is the extension of Web 1.0 but with an emphasis on its main feature of allowing the formulation and exchange of user-generated content (Irani, Sharif, Papadopoulos & Love, 2017). This new

generation of web services consists of a variety of services such as wikis, weblogs, social networking sites, for example, Facebook and Twitter and hosting services such as Flickr and YouTube (Corcoran & Duane, 2016; Muda & Yusof, 2015a; Sulisworo, 2012). Manca and Ranieri (2016) identified social media platforms as often referring to digital social networks such as Facebook, Twitter, LinkedIn, blogs, Wikis and others. The utilisation of social media platforms such as wikis and social networking sites has expanded exponentially and this advancement is ceaselessly turning out to be more coordinated into our daily lives (Zickuhr & Madden, 2012). Social media platforms are considered as key aspects within the university to facilitate knowledge sharing and the performance of significant tasks to support daily communication (Adamovic, Potgieter & Mearns, 2012). These activities include administration and management, teaching, learning and research of university users. The users in universities include academic staff who are the most active users in using internet services, especially emerging services such as social media platforms (Hall, 2014)

Knowledge can readily be shared with the application of social media platforms. Through this, the HEIs can gain a competitive advantage through the utilisation of knowledge they acquire from these social media platforms. The use of social media platforms in an HEI context is being emphasised in recent times in different parts of the world, and this has brought about a significant increase in the number of educational institutions (Sobaih, Moustafa, Ghandforoush & Khan, 2016). Social media platforms can support online users by facilitating and mediating social interactions among online users within a network, they offer flexibility and comfortability to them, and it is possible to understand the social dynamics among the users who use it (Corbeil & Corbeil, 2011)

HEIs can apply social media platforms in order to communicate and share knowledge or ideas between academic staff. University administrators can use it to increase interactions with their customers (students and parents) and for disseminating information about college and university services. Gaál et al. (2015) have pointed out that social media platforms could deliver a forum for learning and could act as a virtual centre for HEI to encourage knowledge sharing and to contribute towards research and teaching methods and a myriad of skills among academics for succeeding in educational competitiveness.

However, difficulties for knowledge sharing by using social media platforms in HEIs are inevitable (Dumpit & Fernandez, 2017). Theoretically, knowledge sharing is unnatural. People believed that their knowledge is valuable and important and are unwilling to share their

knowledge unless there are enough incentives to do so. Furthermore, they do not feel confident to share knowledge by using social media platforms.

Research in the field of social media and knowledge sharing has already been conducted based on conceptual models and using case studies and empirical studies (Ahmed, Ahmad, Ahmad & Zakaria, 2018; Ghazali et al., 2016; Leonardi, 2017; Saad, 2013). Many studies related to social media platforms and knowledge sharing in HEIs have also been conducted (Asunka, 2018; Corcoran & Duane, 2016; Ghazali et al., 2016).

In the Malaysian context, it is urgent that HEIs begin to pay more attention to adopting knowledge sharing approaches using social media platforms to improve knowledge management and performance in order to ensure long-term survival in a competitive environment. As suggested by Abdullah and Haron (2013) and Alias et al. (2016), knowledge sharing could improve organisational performance as a precondition for organisational competitiveness. Hence, effective knowledge sharing has a role to play in improving performance and organisational competitiveness. Furthermore, HEIs play an important role in knowledge creation. The knowledge that is created by academics, which is embedded in their minds, is the intellectual capital of the institution. Competitive advantage can be obtained if the knowledge can be shared with those who need it in order to derive benefits. Thus, Sobaih et al. (2016) argue that, through social media platform and sharing of institutional knowledge by the staff, it will bring meaningful improvements to the institutions, with potential benefits to the broader HEIs and hence the performance of the educational institutions as a whole will be enhanced.

Nevertheless, in the current situation, most Malaysian HEIs face the difficult task of integrating their institutional knowledge for enhancing and improving knowledge sharing activities especially by using social media platforms (Sulaiman, Ghazali, Alias et al., 2016). A study of 17 public universities in Malaysia conducted in 2016 showed that knowledge sharing using social media platforms in Malaysian HEIs is still low (Sulaiman, Ghazali, Zabidi, Omar & Alias, 2016). It was found that only 29.4% of the Malaysian HEIs staff had positive attitudes towards social media platforms. The study also revealed that awareness of the importance of knowledge sharing by using social media platforms only existed in a few universities in Malaysia.

The conclusion is that knowledge sharing by using social media platforms is still underdeveloped in HEIs in Malaysia. Thus, it is necessary to study what strategies could be

adopted to implement knowledge sharing in Malaysian HEIs. The steps towards implementation need to be understood prior to commencement of any effort to introduce knowledge sharing by using social media. Numerous studies have explored these issues but only in the broader context of knowledge sharing between employees of organisations. However, there is a paucity of comprehensive research in the area of knowledge sharing between academic staff in HEIs. In this regard, Al-Kurdi, El-Haddadeh, and Eldabi (2018) conducted a systematic literature review on knowledge sharing within academic staff in HEIs. The article revealed that research to understand knowledge sharing within the context in HEIs is limited as compared with other sectors.

This study, therefore, focuses on social media platforms and knowledge sharing, apart from investigating the influence of organisational elements that contribute to using social media platforms for knowledge sharing. Apart from that, this research identified the knowledge and methods that they shared within the process of knowledge sharing between individuals, such as in an academic team or within the wider institutions. The reason is that empirical and theoretical limitations pointed to the need for further research in these areas and, given the accompanying need for more research within developing countries, this study is conducted in selected universities in Malaysia. Table 1.1 illustrates the context, significance, gap and purpose of the research

Table 1-1: Context, Significance, Gap and Purpose in Research

Statement of the Problem	
Context	Research in current time situation, most Malaysian HEIs face the difficult task of integrating their institutional knowledge for enhancing and improving knowledge sharing activities especially by using social media platforms
Significance	Mostly, the literature in the fields of knowledge sharing by using social media platforms in higher education institution in Malaysia is focusing on students, knowledge sharing and social media platforms in general and not specifically focusing on academic staff. Despite this, it can be seen that there is a need to study the influential elements that may support social media platforms based knowledge sharing. The elements should be identified and clearly understood before knowledge sharing is being practised and applied
Gap	However, comprehensive research in the area of knowledge sharing between academic staff has been poorly researched. This study sought to identify the influential organisational elements that contribute to social media platforms based on knowledge sharing and how the academic staff may get the benefit of using social media platforms for academic purposes
Purpose	The purpose of this study has been to identify the way of organisational elements that shape the use of social media platforms on knowledge sharing and provide the recommendations for managing those influential organisational elements purposely for academic staff.

1.4 The need for the study

In this section, the underlying rationale for this study is discussed. Firstly, HEIs serve as a reservoir of knowledge and are no longer just providing knowledge to students (Sohail & Daud, 2009). The institutions manage, blend and share knowledge among the staff themselves. Accordingly, sharing knowledge is inevitably challenging and an important concept in HEIs. Recently, there have been numerous studies conducted into knowledge management (KM) in universities (Jones & Sallis, 2013; Khorasgani & Moazzeni, 2012; Sinha, Arora, & Mishra, 2012; Sulisworo, 2012). However, only a few focused on knowledge sharing in HEIs. Most of

the studies focused on knowledge sharing activity within business organisations. The ultimate goal of knowledge sharing in business organisations is based on profit-motivated studies. However, the issue of knowledge sharing is similarly significant for a knowledge-based institution, such as the HEIs, where knowledge production, distribution and application are embedded in the institution. Nevertheless, there is the lack of a direct way to assess knowledge sharing in knowledge institutions or the impact of knowledge sharing; yet it can be even more significant than those created by the business organisations.

In recent years, HEIs have not only institute for learning and teaching but have also acted as knowledge creators to provide and highly skilled researchers that help to develop innovations in technology and contribute towards knowledge industries. These institutions are currently being viewed as learning communities, being involved in a collaborative process to achieve shared creation and shared understanding through community-building and observational learning (Yeh, Yeh & Chen, 2012). For this reason, the Ministry of Higher Education in Malaysia has encouraged HEIs to practise knowledge-sharing by as a mainstream business function (Suhaimie, Bakar & Alias, 2006).

One of the most significant current discussions in this field relates to the issue of how to integrate academics' teaching, not merely with critical knowledge, but with skills and abilities to accomplish complex and innovative teaching and research projects (Derksen, Vikkelso & Beaulieu, 2012). Practising knowledge sharing activities is understood as a key development for academic staff in HEIs so they could have greater access to, and use of, viable knowledge to improve institutional performance. Being the key producers of knowledge, higher education institutions have become the primary drivers in the knowledge-based economy (Agarwal, Kiran & Verma, 2012).

In Malaysia, HEIs have a crucial role to play in supporting the national economy, both in the areas of research and development and by creating qualified individuals through education; this is not only to boost Malaysia's economy but also to increase the number of highly skilled and knowledgeable individuals working in knowledge-based industrialised sectors (Fauzi, Tan & Ramayah, 2018).

Despite this, most previous studies of knowledge-sharing in HEIs only focused on student performance (Eid & Al-Jabri, 2016), non- academic staff (Rahman et al., 2016; Tan & Md. Noor, 2013), knowledge sharing behaviours (Muda & Yusof, 2015; Sulaiman, 2010) or organisation environment (Tan & Md. Noor, 2013). To the best of the current researcher's

knowledge, little attention has been paid to organisational elements of knowledge-sharing among HEIs with a focus on academic staff. Most of the studies have not considered the differences in organisations' size as well as the particular features of HEIs that could affect knowledge management.

The choice to share knowledge via social media platforms can be recognised as a voluntary behaviour where this behaviour is governed by the elements that encourage the implementation of knowledge sharing. Despite numerous advantages that can be gained from knowledge sharing, not everybody is willing to share their knowledge actively with others for a number of reasons. In some cases, people are hesitant to share knowledge because of feelings of insecurity (Wan Hussin, Zakaria & Ahmad, 2016). Furthermore, there are limited studies which have investigated how social media platforms can be used for knowledge sharing in HEIs, and even fewer have focused on knowledge-sharing among academic staff. Most previous studies have centred on the importance of social media platform to students. Nevertheless, a few studies have been conducted with a focus on academic staff. However, most of it has been aimed at exploring the application of social media platforms for teaching purposes. Therefore, according to Sulaiman, Ghazali, Zabidi, et al. (2016), further research needs to be conducted to investigate knowledge sharing among Malaysian academic staff to contribute to the understanding of social media platforms' effectiveness.

Besides this, most of the studies were conducted using quantitative methods and were mainly concerned with general knowledge sharing, rather than focusing on organisational elements in knowledge sharing. Consequently, the rationale for this research, is to identify new evidence of the influential organisational elements which can contribute to knowledge sharing among academics working in HEIs in Malaysia and the effects for improving the institutions using social media platforms to optimum advantage. The current study has adopted a qualitative approach to gain more in-depth information and details of the current phenomenon in a selection of a case study HEIs in Malaysia. This is summarised in Table 1-2 below.

Table 1-1: The rationale for conducting this research

Call for Research	Authors
Future studies are advised to include additional elements to evaluate factors influencing knowledge sharing by using social media platform in Malaysian Higher Education.	Al-Rahmi, Othman, and Yusuf (2015), Sulaiman, Alias, Omar, Zabidi, and Zakaria (2015)
Research about social media platform use in knowledge sharing which is still at an early stage, should have further research	Ahmed (2018) , Sarka and Ipsen (2017)
The need for further exploration in determining in what ways or methods other social media platforms can be used for academic practice.	Guy (2012)
Despite the enormous number of studies, there is a still a scarcity of studies that examined the use of social media platform as tools in higher education, and the way it can enhance sharing knowledge in Malaysia .	Al-Rahmi et al. (2018)

1.5 Research Aim and Objectives

This study aims to investigate the organisational elements that contribute to social media platform based knowledge sharing within the context of Malaysian HEIs. To achieve this aim, the research embarks on achieving the following objectives:

- To investigate the ways in which knowledge is shared among academic staff within the Malaysian HEIs.
- To identify the types of knowledge shared in social media platforms among academic staff within the Malaysian HEIs.
- To explore the influence of organisational elements that contribute to social media platforms based knowledge sharing within the Malaysian HEIs.
- To provide recommendations for managing organisational elements to improve the social media platforms based knowledge sharing within Malaysian HEIs.

1.6 Research Questions

This leads to the formulation of the following research questions:

- How do academic staff members share knowledge within the context of Malaysian HEIs?
- What types of knowledge are shared in social media platforms among academic staff?
- What are the organisational elements that contribute towards social media platforms based knowledge sharing?
- How do organisational elements influence the social media platform based knowledge sharing in the Malaysian HEIs?

1.7 Scope of the Research

This study focuses on the use of social media platforms for knowledge sharing among academic staff in the context of Malaysian HEIs. It is expected that the findings of the research will provide guidelines for Malaysian HEIs for improving knowledge sharing as well as offering recommendations for the efficient management of organisational elements to improve social media platform based knowledge sharing. To this purpose, the study aims at identifying the impact of organisational structure, culture, organisational strategy, infrastructure, skills, people and management support, respectively, on the effective sharing of knowledge in these institutions. Additionally, it investigates the relative influences of these organisational elements on effective knowledge sharing within the HEIs.

1.8 Research Methodology

The research methodology can be described along four dimensions: the type of evidence used in the inquiry, the research strategy employed, chosen data collection method (Eisenhardt, 1989; Yin, 2009) and the philosophical perspective (Myers, 1997). Each aspect is discussed below with justifications for choosing one approach over others.

1.8.1 The type of evidence

This research study used qualitative evidence to investigate the influential organisational elements of knowledge sharing by using social media platforms within the context of HEIs in general, but especially in Malaysian HEIs. By analysing data of a qualitative nature, the researcher can reach an in-depth understanding of the observed phenomena (Myers, 1997) from

cognitive, cultural and socio-economical perspectives. Due to the connection between knowledge and the knower, 'hard' quantitative analysis and statistical data have their limitations in providing such insights as are sought in this research (Buckley, 2012) into how reasoning functions of social media platforms may be a method for sharing knowledge, and how organisational elements may influence academic staff in their willingness to engage in knowledge sharing.

1.8.2 The philosophical perspective

This concerns the underlying epistemology and assumptions about what constitutes appropriate research and how any understanding of reality may be obtained (Myers, 1997). The philosophical perspective adopted influences the research design and the selection of appropriate research methods. This research has adopted an interpretive approach, which takes the stance that access to reality is through social constructions of language and shared meanings. In addition, to understanding knowledge sharing, one must first understand and have experience of it, specific to a given context by using social media platforms, the meaning of knowledge to an individual, and the meaning of knowledge shared among people.

1.8.3 The research strategy

This refers to the "strategy of inquiry which moves from the underlying of philosophical assumptions to research design and data collection" (Myers, 1997). This research employed a case study strategy to investigate in-depth the influence of organisational elements of knowledge sharing by using social media platform within the context of Malaysian HEIs. Case study, as a research strategy, is particularly suitable for investigating empirically a "contemporary phenomenon within its real-life context" especially when "limitations between phenomenon and context are not evident" (Yin, 2009:59). While other experiment-based strategies may deliberately separate a phenomenon from its context into control variables, a case study is particularly suitable for knowledge sharing research, since knowledge is situated and context-sensitive. Appropriate interpretation of received knowledge relies upon effective communication of the context. Furthermore, knowledge research in general, has moved from questions of 'what' to questions of 'why' and 'how'. A deeper understanding of knowledge activities is required to develop a prescriptive methodological procedure as a 'how to' guide to improve social media platforms based knowledge sharing in HEIs. A case study enables the

researcher not only to identify the relationship but also to explain the factors involved and build the theory (Eisenhardt, 1989).

1.8.4 The data collection method

A semi-structured and clearly-defined research framework not only makes research reports easier to read and write, but it also systematises data collection and enhances the reliability of 'within-case' analysis by focusing attention on the research questions (Yin, 1981). The researcher selected a context that is both accessible and rich in data. As a result, two private and two public universities in Malaysia were selected as the target sample. The researcher has concentrated on four faculties: social sciences, management sciences, education, and arts; data collected from these faculties should apply to other faculties. An initial pilot study was conducted mainly to get some preliminary data on knowledge sharing by using social media platform in general and to make sure that the terms and themes used in describing the organisational elements in knowledge sharing by using social media platform were understood. The interview presents an opportunity for individuals to express their views and to explain why they take a particular viewpoint (Easterby-Smith et al, 2012:132), thereby generating new ideas and modifying existing knowledge. According to Travers (2001), in order to reduce interview bias, documentary evidence was cross-referenced with interview data, providing a triangulation of the two research instruments to further enhance the reliability of 'within-case' analysis (Eisenhardt, 1989).

1.8.5 Validity and reliability of research

The application of the criteria for construct and reliability is part of research process to ensure the rigorousness of this study. The validity of the findings was strengthened through data triangulation. The researcher interviewed people at different levels in the HEIs (top management level academic staff to junior academic staff). The criteria of validity were considered through the trustworthiness of the methods, which was achieved during and after the collection of data.

1.9 Contributions to the study

In general, through theoretical and empirical studies examined in this study, the research aims to contribute to the limited body of knowledge on knowledge sharing and the influences of organisational elements on social media platform based knowledge sharing. The research was developed in the connections of studies in knowledge sharing, social media platforms and

organisational element and thus provided a more comprehensive investigation than previous studies. Apart from that, the theoretical link was created between all different elements, which addressed the gap in the literature.

The exploration of the influences on organisational elements of social media platforms based knowledge sharing made an important contribution to the existing body of research knowledge and could therefore provide a more detailed representation of activity among academic staff within the context of Malaysian HEIs.

This research is principally intended to fill the gap in the knowledge sharing literature by providing an in-depth understanding of social media platform based knowledge sharing among academics in HEIs. Research into knowledge sharing in the higher education sector is limited, despite extensive research carried out in the commercial sectors and in other public sectors. While some research has been conducted in the context of Malaysian HEIs, very few studies focused on the use of social media platforms as a base for knowledge sharing specifically among academic staff.

Furthermore, the previous literature has not provided rich insights into identifying the influential organisational elements impacting on the use of social media platform based knowledge sharing in HEIs. By investigating the main influence of organisational elements of social media platform based knowledge sharing in the Malaysian HEIs, this is expected to contribute to the enrichment of the existing body of knowledge as this study has been rarely conducted in Malaysia. Therefore, this study is expected to lead to a better understanding of such contexts for future research and contribute to the general body of knowledge.

Moreover, at the end of this study, the three new findings will be utilised in developing recommendations to assist Malaysian HEIs with developing new strategies for supporting and reinforcing the use of social media based platforms for knowledge sharing to increase the effectiveness and efficiency of the academic institutions. The three new findings are:

- Identification of the medium or ways of knowledge sharing among academic staff in Malaysian HEIs.
- Identification of the influential organisational elements for social media platforms based knowledge sharing
- Identification of new and appropriate organisational elements

1.10 The Structure and Organisation of the thesis

This study is organised into six chapters. This chapter includes an introduction to the background of the study, the research problem and need for the study, the aim and objectives of the research, the research questions and the scope of the research. The subsequent five chapters are organised as follows.

Chapter 2 Literature Review

This chapter includes a comprehensive survey of the literature and discussion on the theory that informs the research. This first part of the chapter is related to overviews of knowledge sharing and the nature of knowledge itself. The literature differences on knowledge sharing and knowledge transfer are covered in this chapter. This chapter show a review on knowledge sharing perspectives. Then, the chapter elaborates the conception of knowledge sharing and its issues. As the main area in the research concerns the literature on the potential organisational elements, knowledge sharing in HEIs and within the Malaysian context, social media platforms are further discussed for this research. The suitability of the concept chosen in this research is clarified and justified. Furthermore, the literature related to social media platforms is further discussed. The chapter then presents the theoretical framework used for this research.

Chapter 3 Research Methodology

The research methodology chapter is an essential component of the research process. The chapter introduces the researcher's philosophy, and paradigm of the study. It also classifies the research; states the methodology; details the approach as well as the choices the researcher is using together with their justifications. The chapter further explains the researcher's data collection methods and analysis. Furthermore, the chapter states what methods the researcher is using for validating the research findings. Finally, the chapter specifies the researcher's ethical considerations throughout the research process.

Chapter 4 Data Analysis and Findings

This chapter reviews the various data and information collected during the research investigation. The chapter presents the findings of the interviews conducted and document reviews by comparing the data with the literature review to list any new findings or correlation of data.

Chapter 5 Discussion on Findings

This chapter discusses the findings of the research. The chapter analyses and discusses the findings; and links the findings with the theoretical framework and literature.

Chapter 6 Conclusions

This is the final chapter of the research which summarises the overall objectives of the research. Then it concentrates on evaluating the contribution of the research to the literature on knowledge sharing within the context of HEIs, followed by various discussions on ways to improve knowledge sharing within the university departments. Furthermore, research limitations are identified along with implications and recommendations for future research.

1.11 Summary

The chapter introduces the research topic by identifying the problem and narrowing down the scope of the research. The rationale for the research as well as the aims, objectives and the research questions are enumerated. Finally, the chapter summarises each chapter of the research and lists the expected research contributions of the study

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

In Chapter 1 the background and context of the study was presented as well as the research questions which have instigated this study. Chapter 2 critically surveys the literature relevant to knowledge sharing and identifies influential organisational elements found in previous research. The chapter is structured as follows: definition and relevance of knowledge sharing, followed by definition and concept of knowledge itself as well as discussing the distinction between knowledge sharing and knowledge transfer. The chapter then moves on to focus on knowledge sharing within Higher Education Institutes (HEIs), including identifying barriers which impede the sharing of knowledge, before considering knowledge sharing approaches within the context of Malaysian HEIs. The organisational elements such as organisational culture, organisational structure, management support, technology infrastructure, skills, people and organisational strategy are then considered followed by a critical appraisal of the literature related to social media platforms and their roles within HEIs. Lastly, the theoretical underpinning of this study is presented and justified.

2.2 Theoretical Framework for Knowledge Sharing

Knowledge sharing is an essential asset to almost all organisations, including HEIs. Sharing of knowledge among individuals is important in different organisations because it allows the generation of new ideas, innovation and creativity and opens new opportunities through the socialisation and the development of highly skilled employees. Knowledge sharing is one of the processes in knowledge management and can be defined as passing on certain knowledge such as best practices, positive experiences and learning abilities from one individual to another within an organisation to promote cooperation and collaboration towards task and goal accomplishment (Kathiravelu & Abu, 2015)

Gagné (2009) similarly confirmed that a primary objective of knowledge management is the systematic and successful monitoring of knowledge sharing among an organisation's members. Hislop (2013) also pointed out the vital role of sharing in successful knowledge management. However, (Buckley, 2012) has claimed that knowledge sharing is known merely in terms of the beliefs in routines of knowledge and experience dissemination among the units of organisations (Calantone, Cavusgil and Zhao, 2002). This knowledge sharing occurs when an

individual is willing to assist in the development of new competencies (Yang, 2007). If nobody is willing to share the knowledge, knowledge sharing will not occur. This is the reason given by Yang (2007) for defining knowledge sharing as the transfer process where individual competencies are developed through sharing and learning. Given that knowledge sharing is a vital part of the everyday life of HEIs, it is highly important to implement knowledge sharing activities to encourage innovation, efficiency and effectiveness.

Nonetheless, according to Davenport and Prusak (1998) knowledge sharing is an important success element in knowledge management because it plays a pivotal role in knowledge dissemination (Syed-Ikhsan & Rowland, 2004). Knowledge sharing only allows employees to share their opinions and experiences quickly for useful project completions (Geraint, in Ramirez, 2007), which implies that employees gain from the sharing of experiences from others in order to solve problems (Ramirez, 2007). Without this sharing of experience, knowledge sharing would not exist.

Another perspective is offered by Chay, Menkhoff, Loh, and Evers (2005) who described it as ‘...the process where individuals mutually deliberate their knowledge and mutually generate new knowledge’. Chay et al. (2005) view knowledge sharing as essentially a process of communication involving two or more parties in the transfer of knowledge. The process commences with a source of knowledge which is then interpreted by one or more of the recipients. Simply stated, knowledge sharing is an aspect of social interaction which calls for the participation of everyone engaged in the process.

According to Moghavvemi, Sharabati, Paramanathan, and Rahin (2017) the collaborative nature of knowledge sharing is seen as “the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures”. Knowledge sharing could be regarded as a type of social exchange (Bock, Zmud, Kim & Lee, 2005) with people sharing their knowledge and skills with their colleagues and expecting, reciprocally, to receive others' knowledge in return. In another sense, knowledge sharing involves the capability of dissemination, transferring, diffusion, sharing and distribution within and between organisations, communities or departments (Ramayah et al., 2014). Alternatively, knowledge sharing has been described as the act of disseminating one's acquired knowledge with other members within one's organisation (Wei Chong, Yen Yuen & Chew Gan, 2014). However, these definitions are more general and applicable to any

organisational context. This knowledge sharing can be defined as individual competencies developed through the sharing and learning process (Hong, Suh & Koo, 2011) As for knowledge transfer, this involves a person or a recipient group being influenced by the relative quality of the transferred knowledge (Mc Manus, 2016)

Nevertheless, Davenport and Prusak (1998) whilst acknowledging the importance of sharing explicit knowledge by means of information technology also stressed the crucial importance of sharing tacit knowledge, as was previously stressed by Spender (1996) who viewed both types of knowledge sharing as essential for an organisation to gain a competitive edge. However, given that tacit knowledge is embedded in the personal experience of individuals rather than in databases (Polyani, 1958), it is arguably of crucial importance that people in organisations should be enabled to share their tacit as well as their explicit knowledge. Thus, the store of knowledge that results from sharing within an organisation can be conceptualised as a public asset that accumulates over time within an organisation's development (Shukor, Nawi, Basaruddin & Rahim, 2013), although certain employees may be resistant to share the knowledge which they have acquired with others. In fact, Hislop (2009) points out that many employees may wish to evaluate the pros and cons of sharing their acquired knowledge before reaching a decision on whether to share this knowledge. Consequently, it is important, within knowledge management, to understand which factors encourage or impede the willingness of individuals to share their knowledge for the benefit of the whole organisation (Sulaiman, 2010).

Based on a relational perspective, the definition of knowledge sharing by Ahmed (2018) only refers to one activity through which knowledge is exchanged among people, friends, or members of a family, a community or an organisation and the communication of knowledge from a source in such a way that it is learned and applied by the recipient. Another perception of knowledge sharing is that it is more of a voluntary dissemination activity, which requires skills and experience in the organisation (Davenport, 1997; Ipe, 2003). If the individuals lack skills and experience, it is difficult for knowledge sharing to become embedded in the organisation. These statements are more in line with the general concept and are applicable to this research context, where knowledge that is shared by social media platforms and applied within the education environment is the central point. For this reason, as the focus of the study was on knowledge sharing using social media platforms, the definition of Ahmed (2018) was seen as most appropriate and has consequently been adopted in this research.

Over time, the terms have been more briefly explained as a set of behaviour that includes receiving and sharing of knowledge from and with other have emerged (Asunka, 2018; Naeem, 2020) Naeem (2020) considered knowledge sharing as an important process in organisations, because it is important to generating new ideas and developing new business opportunities through socialization and the learning process of knowledge workers. In today’s world, knowledge sharing is said to be power because of the benefit to the sharers (giver and receiver) and the organisation. Other definitions of knowledge sharing are summarised presented in Table 2.1 below.

Table 2-1: Definitions of Knowledge Sharing

Authors	Definition
Sohail and Daud (2009, p. 128)	Knowledge sharing is defined as exchanging experience, events, thought or understanding on anything (in general) with an expectation to gain more insights and understanding about something for temporary curiosity
Wang and Noe (2010, p. 117)	Knowledge sharing defined as the activities through which knowledge such as information, skills, or expertise is exchanged among people, friends, families, or organisation
Ghazali et al. (2016, p. 1)	Knowledge sharing can be referred as a social interaction where it consists of individual interactions and participation and when both of these important elements involved, knowledge sharing turn out to be more effective.
Tan, Wong, Lam, Ooi, and Ng (2010, p. 1016)	Knowledge sharing is known as the essential components of the knowledge management process in association with the exchange of information and transferring of knowledge among the lecturers, administrative staff and students.
Lin, Lee, and Wang (2009, p. 26)	Knowledge sharing can be defined as a social interaction culture, involving the exchange of employee knowledge, experiences, and skills through the whole department or organisation

The above definitions imply that knowledge sharing is related to any activity which refers to sharing knowledge, or to donating and collecting knowledge. This may relate to knowledge sharing as a psychological process that requires a series of initiatives to help employees identify the knowledge they possess and then to motivate, enable and encourage them to share that knowledge with others (Ipe, 2003). More specifically, for the purposes of the current research context, the definition of knowledge sharing is related to how academics in HEIs share and manage knowledge during daily activities including acquiring, learning, disseminating and sharing information and knowledge, and transferring tacit knowledge into explicit knowledge, and vice versa, based on the use of social media platforms.

2.2.1 Definition of knowledge

Knowledge can be defined in a variety of ways according to specific aspects of the organisation. As various authors have defined it, knowledge can be understood as the facts, skills and understanding that one has gained, especially through learning or experience, which enhance one's ability to evaluate context, making decisions and taking actions (Awad & Ghaziri, 2004; Kidwell, Vander Linde & Johnson, 2000). On the other hand, knowledge may combine information with experiences, by using it can provide their people with the ability to find and use methods and procedures that were created or used by others previously to solve similar problems, and to learn from past experiences, while maintaining the new created experiences to be used in the future (Davenport & Prusak, 1998; Tiwana, 2000). Numerous definitions have been developed in the KM literature to assist the understanding of knowledge within KM and distinguish it from other forms of contents such as data and information. Examples of the definitions of knowledge in the KM literature reviewed are presented in Table 2.2.

Table 2-2: Examples of Definitions of knowledge in the KM literature reviewed

Authors	Definitions
Davenport and Prusak (1998, p. 5)	Knowledge is a fluid mix of framed experience, values, contextual information, expert insight and grounded intuition and information. It originates and is applied in the minds of the knower. In the organisations it often becomes embedded not only in documents or repositories but also in organisational routines, practices and norms
Muda and Yusof (2015a, p. 70)	Knowledge is defined as a combination of experience, values, information and understanding of the individual. It can be articulated, concluded, written, drawn and compiled to form the experience and new knowledge in various formats such as documents, images, sound and video.
Polanyi (2012, p. 12)	Knowledge as being formed when people combine what people know with information available to them residing in organisational processes, services, facilities, and systems
Sezgin and İplik (2018, p. 172)	Knowledge, which has become the basic power and main capital in human, organizational and social life with the development of communication and technology, is defined as a flexible combination of experiences, values, contextual information and expert opinion, which all constitute a roof for the collection and assessment of new experiences and information
Tan et al. (2010, p. 1016)	Knowledge as “an organized body of data, information, skills and expertise for the purpose to create new information when carrying out a task”.

Knowledge is generally agreed to be an elusive concept which is difficult to define, as stated by Rowley and Hartley (2017). The authors clearly explain that knowledge is typically defined as concerning the information. For example, from Rowley and Hartley (2017, p. 6) the processes that convert information into knowledge are variously described as :

- synthesis of multiple sources of information over time
- belief structuring
- study and experience
- organisation and processing to convey understanding, experience, accumulated learning and experience
- internalization concerning cognitive frameworks.

Despite this, Davenport, De Long, and Beers (1998) stated that knowledge could be one of the essential elements in human life. Meanwhile, various experts in management also have their definitions, for example, Wiig (1997) who defines knowledge as the insights, understandings, and practical know-how that people all possess; it is the fundamental resource that allows us to function intelligently. This is somewhat different from Theocharis and Tsihrintzis (2016) who stated that knowledge could hinder people through the experiences and ideas and subject to the possession skills that support the perception of reality and the existence of objective reality.

However, Al-Alawi, Al-Marzooqi, and Mohammed (2007) define knowledge similarly as a combination of experience, values, contextual information and expert insight that help evaluate and incorporate new experiences and information. Knowledge becomes accepted as the main competitive advantage for organisations. It delivers to organisations the capability to innovate and to optimise the use of the organisations' assets and capabilities.

Accordingly, knowledge is a basic human right. Access to all possible human experiences is a basic human right. Also, Nooshinfard and Nemati-Anaraki (2014) mention that knowledge is the skill, intuition and experience that can influence decision making.

However, Nonaka and Takeuchi (in Kubo et al., 2001) define knowledge as clear job-related information and the skills and experience required to carry out tasks. Furthermore, Gammelgaard and Ritter (in Al-Alawi et al. (2007)) conclude that knowledge is a combination of life experiences which can evaluate and contribute new ideas. Based on this, Al-Alawi et al.

(2007) suggest that knowledge is not limited to paper or databases; it also exists in people's minds and is expressed by their behaviours. In other words, knowledge is also defined as justified belief which can enhance an entity's ability for action improvement (Alavi & Leidner, 1999; Essers & Schreinemakers, 1997; in Wei Chong et al., 2014)

2.2.2 Concept of knowledge

Nonaka and Takeuchi (1995) consider knowledge acquisition to be an influential human activity whereby personal belief is critically assessed in an effort to attain truth. Thus, knowledge is seen as originating in a self-conscious inclination to transform or revamp that which is already known to devise new perspectives for a given phenomenon. Thus, knowledge itself is a highly complex phenomenon which is difficult to define (Serban & Luan, 2002a). However, Hislop (2005) casts some light on the matter of definition by making a distinction between three related terms:

- Data, such as raw numbers, images, words and sounds acquired through observation or measurement;
- Information, considered as data which has been processed to make meaning by the input of some intellectual activity
- Knowledge, which is seen as arising from an analysis of the information which is gleaned from the data with perhaps the attribution of certain causal features or chain of events which provides meaning to the information.

Additionally, each of the concepts relates to each other, with data and information providing the building blocks for knowledge, yet knowledge is also viewed as being able to generate information and data, making the relationship between the dynamic, interactive, and multi-directional. Moreover, Zins (2007) states that the generally accepted view about data is that it is an array of numbers whereas information is data in context; knowledge is information that is accumulated and organized in a meaningful way. Alavi and Leidner (1999) also mention that data could be defined as “raw” facts and numbers which can be expressed in terms of numbers, symbols, text, images or voices and which can become “information” when it is put in a certain context Clarke and Rollo (2001). Moreover, from the information, it encompasses the concept

of data in a larger context. It became data that has been processed into what is meaningful to the recipient (David & Fahey, 2000)

In this sense, the distinction between data, information and knowledge is often be made. It is an aggregation, reformatting and processing of data can be used for decision-making (Clarke & Rollo, 2001; Zins, 2007). Davenport et al. (1998) mention that for data to become information, it must be contextualized, categorised, calculated and condensed. The information thus paints a bigger picture; it is data with relevance and purpose. Zins (2007) suggests that what an individual gathers from information is related to cognitive capacity and interpretive schema. It will continue to state that it is reasonable to suggest that other people may infer different things from the same information, which could lead to the creation of new and different knowledge.

Mainly information is found "in answers to questions that begin with such words as who, what, where, when, and how many" (Tsoukas & Vladimirou, 2001). This information is a medium or material for eliciting and constructing knowledge. It affects knowledge by adding something to it or restructuring it (Nonaka, 1994). According to Helinä and Vesa (2008) when information is combined with past experiences, insights, frames, values, expertise and beliefs, knowledge is created. Alavi and Leidner (2001) agree that information is converted to knowledge once it is processed in the mind of individuals and knowledge becomes information once it is articulated and presented in the form of text, graphics, words and other symbolic form.

Correspondingly, Meihami and Meihami (2014) state that knowledge is distinct from information. Moreover, Wang and Wang (2012) describe information as a set of meaningful facts in a particular context, whereas knowledge is considered as larger and longer-living structures of meaningful facts. Thus, knowledge is understood as “information processed by individuals including ideas, facts, expertise and judgments relevant for the individual, team and organizational performance”(Jayasingam, Ansari, Ramayah & Jantan, 2013)

2.2.3 Types of Knowledge

Organisations that wish to facilitate knowledge sharing between individuals and teams must be cognisant of the type of knowledge involved. There are several types of knowledge. According to Zack (1999) there is a simple way to distinguish these types by using the basic categories

namely declarative or descriptive, procedural, and causal and/or reasoning. Zack (1999) further explains that declarative or descriptive knowledge may describe the concept that has a past, present and future. In another context knowledge also can be organisational or personal (Dulipovici & Baskerville, 2007). On the one side, organisational knowledge can be the capacity members of an organisation have developed to draw distinctions in the process carrying the work by enacting sets of generalisations whose applications depend on historical information and understanding (Tsoukas & Vladimirou, 2001). Some scholars, such as Bhatt (2002) and Starbuck (1983), see organisations could learn and acquire organisational knowledge through their routines and repertoires, which are embedded in specific organisational histories. Through that- knowledge of diverse repertoires or routines is integrated and new knowledge is created is shaped by organisational history and culture. The knowledge that takes place in an organisation is meaningfully precious by the complexity of responsibilities and the organisational environment. The original work of Nonaka, Von Krogh, and Voelpel (2006) find that organisational knowledge is derived from the process of making available and expanding knowledge created by individuals as well as crystallizing and connecting it to an organisation knowledge system. In other words, the organisational knowledge is that which individuals have contributed comprising everything they have come to know in their work life which could be a benefit to their colleagues and, and the whole organisation.

On the other hand, personal knowledge can be the individual capacity to draw distinctions within a domain of action, based on the appreciation of context or theory or sometimes can be both (Tsoukas & Vladimirou, 2001, p. 61). Therefore, knowledge can, in general, be perceived as the product of the dynamic and continual relationship between “human agency”, practices of knowing and the organisational context. (Serban & Luan, 2002b).

In addition, Earl (2003) states that knowledge in an organisation can be internal or external. He explains that internal knowledge can be obtained from internal sources such as from staff members and departments. External knowledge can be from external bodies such as experts, clients, colleagues and other organisations or institutions. In this sense, knowledge from within the organisation cannot simply be described as formal knowledge that can be found in contexts, training programmes, dealing with customers or formal information (Garvey & Williamson, 2002; Tsoukas & Vladimirou, 2001)

Another author, Polanyi (1966) creates a valuable distinction in the various types of knowledge. This distinction is between tacit and explicit knowledge. Tacit knowledge is that which an individual possesses internally but may not easily express outwardly. Put another way, explicit knowledge is easy to share for example knowing what a bicycle is, but tacit knowledge is derived from personal experience and is not easily shared such as knowing how to ride a bicycle. More specifically, tacit knowledge entails insights, intuitions and beliefs that are tightly intertwined with personal experience with the knowledge source (Polanyi, 1966). Tacit knowledge is seen as difficult to transmit between parties, which is both an advantage because competitors cannot easily acquire it and a disadvantage insofar as the transfer of tacit knowledge within a group can be challenging (Delanty, 2001).

The two most common distinctions made are between Polanyi's tacit knowledge and explicit knowledge, (Polanyi, 2012) and between individual and group knowledge (Hislop, 2005).

2.2.3.1 Explicit Knowledge and Tacit Knowledge

In order to better understand knowledge, it is necessary to understand the variety of different classifications by scholars (Nonaka, 1994; Polanyi, 1967). The concept of tacit and explicit knowledge is a key debate in the literature. The well-acclaimed authors Nonaka and Ichijo (2007) state that explicit knowledge can be expressed in words and numbers, and is easily communicated and shared in the form of hard data, scientific, formulas, codified procedures, or universal principles. This type of knowledge can be formulated relatively easily using words, numbers and symbols, and can also be digitised. Nonaka and Takeuchi (1995). Beside that Polanyi (1967, p. 16) explains explicit as codified knowledge that could be transmitted formally and tacit as knowledge that deeply rooted in action, commitment and involvement in a specific context. Polanyi's philosophical concepts of knowledge more into practical context and emphasises the subjective dimension of tacit knowledge through the notions of beliefs and commitment alongside a more traditional concept of subjective knowledge.

Other authors like Satyadas, Harigopal, and Cassaigne (2001) state that explicit knowledge can be represented using schemes such as semantic networks, scripts, expert systems, and others and is in agreement with Kidwell et al. (2000) that explicit knowledge is documented information that contributes to action. It can be expressed in formal, shared language including formulas, equations, rules and best practices. Explicit knowledge can be viewed as:

- Packaged
- Easily codified
- Communicable
- Transferable

According to Nonaka and Ichijo (2007) tacit knowledge can be described as personal knowledge embedded in individual experience and which involves intangible factors such as personal beliefs, perspectives and the value systems; it is not easily visible and expressible, and thus is hard to articulate with formal language and communication. Additionally, Nonaka added two dimensions to their understanding of tacit knowledge:

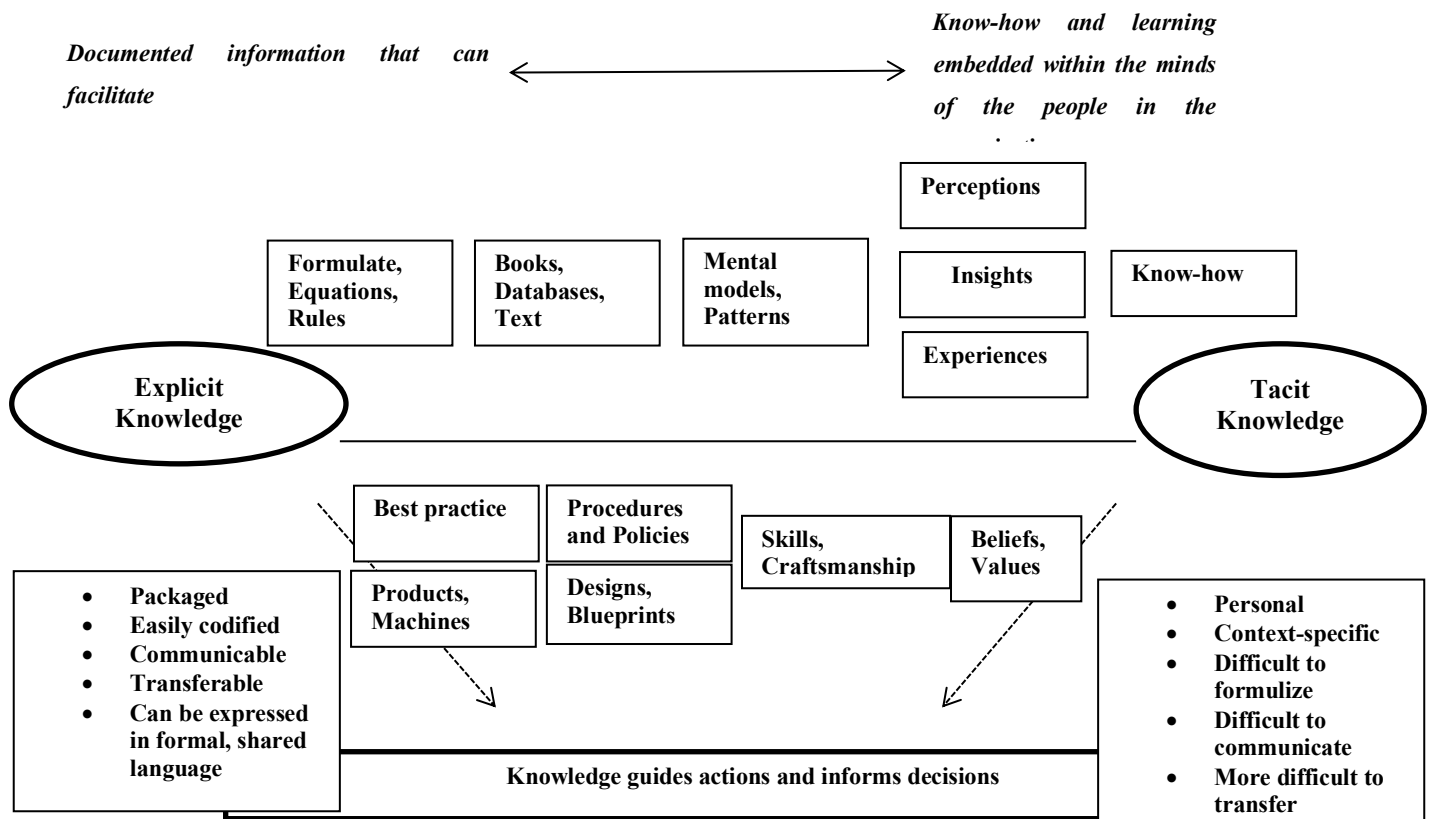
- The first is the technical dimension, which encompasses the kinds of informal and hard to-pin-down skill or craft captured in the term know-how
- The second is the cognitive dimension, which consists of schemata, mental models, beliefs, and perceptions, so ingrained that we take them for granted (Nonaka & Kazuo, 2007, p. 298).

Helinä and Vesa (2008) state that the tacit knowledge can be deeply rooted in action (practice) and is connected to concrete contexts (Shashi Prabha, 2007) and this type of knowledge is difficult to transfer to others as information and is difficult to digitise (Kock, McQueen & Corner, 1997). Polanyi (1962) states that tacit knowledge cannot be expressed and articulated. Tacit knowledge is evident as the institutionalised aspects of the organisation's activities. This knowledge has been transformed into habit and made traditional in the sense that no-one can explain it; it becomes "the way things are done around here" (Spender, 1996)

Some scholars, such as Kidwell, Vander Linde and Johnson (2000), as makes clear in Figure 2.1 below, state that tacit knowledge is the 'know-how' and learning embedded within the minds of the people in an organisation. It involves perceptions, insights, experiences, and craftsmanship. Tacit knowledge is:

- Personal
- Context-specific
- Difficult to formalise
- Difficult to communicate
- More difficult to transfer

Figure 2-1: The framework concerning the two main types of knowledge (Source: from Kidwell et al. (2000, p. 29))



In addition, Ahmed, Lim, and Loh (2002) confirm that knowledge is more than information; it cannot simply be said, and it is seen more as a capability. In other words, the researcher agrees with the definition of knowledge as a justified belief which can enhance an entity's ability to act and improve (Zheng, Yang & McLean, 2010).

Knowledge consists mainly of explicit knowledge and tacit knowledge. Explicit knowledge can be described as documented knowledge while tacit knowledge can be known as non-documented knowledge (Ali, Gohneim & Roubaie, 2014; Ipe, 2003; Jain, Sandhu & Sidhu, 2007; Sohail & Daud, 2009). The explicit type of knowledge can be easily communicated, shared and transferred. Explicit knowledge can be in the forms of all published content in books, journals, web pages, audio, and videos. In contrast, tacit knowledge is used to refer to the knowledge that is rooted deeply in an individual's mind and which is difficult to be expressed or documented (Kaeomane, Dominic & Rias, 2012). Tacit knowledge embraces illustration ideas, experiences, values and beliefs and personal skills. Since the characteristics

of these two types of knowledge are different, explicit knowledge and tacit knowledge require different approaches to how they are to be shared. This definitional distinction is the appropriate definition which has been adopted in this research context.

Tacit knowledge is embedded personally in an individual experience and depends on other factors such as personal belief, perspective and value systems (Mohd Arif, Mahmud, Shaari, Bahari & Rajab, 2009). Fullwood et al. (2013) discovered that tacit knowledge has their own identical term and defines it as practical know-how. It is informal rather than formal among professional groups including academicians.

Meanwhile, implicit knowledge shares slight similarities with tacit knowledge. This implicit knowledge is knowledge that is hidden in the operating procedures, methods or corporate culture of the company. Since they are hidden, they are difficult for the novice or beginner to identify and learn (Brooking, 1996). In other words, it can also be concluded as experience of the owner of knowledge.

2.2.3.2 Individual and organisational knowledge

Even though Nonaka opposes the idea that knowledge can only exist at the individual level, other authors have suggested that knowledge can reside in social groups to some extent; one of the authors for example Spender (2006) stated the distinction in terms of being between the individual and organisational or group knowledge, and combines it with Polanyi's (1966) tacit and explicit knowledge dichotomy (Hislop, 2005). Spender (1996) views four different types of knowledge:

- i) Individual / explicit (conscious)
- ii) Individual / tacit (automatic)
- iii) Social / explicit (objectified)
- iv) Social / implicit (collective)

According Bhatt (2002), the individual knowledge and organisational knowledge are distinctive yet interdependent. The scope to which each individual interacts with the other depends on the organisational culture (Bhatt, 1998). It could be this view because in the present environment, individuals in the organisations need to make many quick decisions to resolve the problems.

On the other hand, in different situations, Joranli (2018) discussed the organisational tasks are highly reliant and individuals do not keep necessary levels of expertise to solve interdisciplinary problems, employees are required to collaborate with others to share their knowledge and expertise.

Besides by agreeing on common presumptions and analytical frameworks, employees could coordinate assorted sets of activities and solve organisation-wide complex problems. Many of these kinds of tasks are confronted by professional firms, where each individual possesses expertise in a specific area, because of his/her educational background and work practice. As long as individuals in professional firms confront tasks that are within their areas of expertise, they can easily execute these tasks without requiring interactions with others. However, when the nature of tasks is complex, requiring integration of expertise from several interdisciplinary areas, individuals need high levels of interaction with others, besides being able to access organizational knowledge. Although an organization can use individual expertise in seeking the solutions of organization-wide problems, it cannot claim its right on individual's knowledge. On the contrary, the organization itself becomes vulnerable to the mobility and idiosyncrasies of experts. Therefore, even after employing a number of experts, the organization may still not gain its full potential in solving organization-wide complex problems

2.2.4 The differences in knowledge sharing and knowledge transfer

Davenport and Prusak (in Perrin et al., 2007) claim that knowledge transfer consists of two things which are transmission and absorption; otherwise, the knowledge will not be transferred. Knowledge sharing is also important for determining the success of organisations (Davenport and Prusak, 1998) due to the contribution of knowledge utilisation (Ikhsan and Rowland (in Al-Alawi et al., 2007)). This leads to the aim of this research, which is to investigate organisational elements for knowledge sharing. Moreover, Davenport and Prusak (1998) argue that knowledge transfer is only involved within two actions: first, when knowledge is transmitted to a potential recipient, and second when it is absorbed by a person or a group. Otherwise, knowledge transfer does not occur (Perrin et al., 2007).

Meanwhile, Roberts (2000) states that knowledge transfer will only happen if knowledge is diffused from the individual to others. It can disseminate through the 'process of socialisation, education and learning'. This statement is supported by Davenport and Prusak (1998), who also mention the limitations of the definitions of knowledge sharing or knowledge transfer, as they

do not specify whether the knowledge is transferred from one individual to another or from individuals to groups (Zheng, 2005). If the knowledge transfer scenario in organisations is about the process, either the group, department or vision is influenced by the experiences of another (Argote, 2012). Knowledge sharing is also applicable in situations where people are willing to share a common purpose and share their experiences purposely to exchange ideas and information (Fauzi, Tan Nya-Ling, Thursamy & Ojo, 2019) This means knowledge sharing can be known as a process of exchange where resources are given by one part and received by another (Sarkheyli, Alias & Ithni, 2014). In other words, the condition to meet the rules of knowledge sharing is that the exchange of knowledge must be at least within a reciprocal process, allowing reshaping and sense-making of the new context knowledge (Jain et al., 2007).

Apart from that, Yang (2007) states that knowledge sharing is a process where knowledge is reciprocally shared between individuals within a group, negotiated and refined until it becomes common knowledge to the group. This sharing process often consists of collecting, organising and conversing knowledge from one to another (Asunka, 2018). Indeed, knowledge management practitioners assert that, to get the most value from one's intellectual assets, knowledge must be shared and serve as the foundation for collaboration. This is so because, when managed properly, knowledge sharing can greatly improve work-quality and decision-making skills, problem-solving efficiency as well as a competency that will benefit individuals and the organisation at large

Similarly, from the process perceptive, knowledge sharing can be known as the process of delivering knowledge from a source unit to a recipient unit (Wei Chong et al., 2014). Without a source and recipient, knowledge sharing will not happen and only accomplished if the continuity of knowledge is being shared However, knowledge transfer requires that an individual or a group cooperate with others to share knowledge and achieve mutual benefits (Syed-Ikhsan & Rowland, 2004)

2.2.5 Knowledge sharing in the knowledge management context

Knowledge sharing is one method for both making sure that knowledge is available and delivered at the right time. Additionally, knowledge sharing can save time and improve quality by providing appropriate solutions to clients.

Tiwana (2002) classifies KM in terms of three different processes: knowledge acquisition, knowledge sharing and knowledge utilisation. Knowledge acquisition is the process of development and creation of insights, skills, and relationships. Knowledge sharing is the act of disseminating and making available knowledge that is already known. Knowledge utilisation takes place where learning is integrated into the organisation (Tiwana, 2002). Knowledge sharing is part of the knowledge management process of an organisation (Nassuora, 2011). Holsapple and Joshi (2000, p.91) describes the operational objective of knowledge management as to "ensure that the right knowledge is available to the right processors, in the right representations and at the right times, for performing their knowledge activities and to accomplish this for the right cost". Knowledge sharing and knowledge management are not similar (Nassuora, 2011).

Knowledge sharing can also be seen as communication of all types of knowledge, which includes explicit knowledge information, the “know-how’ and “know-who’ (Nassuora, 2011) Knowledge-sharing takes place between at least two parties called actors (Lee & Al-Hawamdeh, 2002) and cannot exist outside of the human brain (Lin, 2008). It also occurs when an individual is willing to assist as well as to learn from others in the development of new competencies. The sharers of the knowledge should also share the full circumstances of a case, not selected circumstances (Lin, 2008). The actor factors comprise communication skills, absorptive capacity; channel factors include documentation, environment (Sohail & Daud, 2009). In contrast, other researchers emphasise the importance of sharing knowledge; for instance, Wei Chong et al. (2014) stresses that knowledge should be shared to increase the value of the organisation. For organisations, the knowledge sharing is considered as an important element for their success (Chen & Hsieh, 2015; Wei Chong et al., 2014) including higher learning institutions (Alhammad, Al Faori & Abu Husan, 2009; Fullwood et al., 2013; Goh & Sandhu, 2013; Sohail & Daud, 2009).

Knowledge sharing is a means to and end not an end in itself. A number of studies (Gupta, Iyer & Aronson, 2000; Ipe, 2003; Lin, 2008) indicate that practising knowledge sharing results in improved organisational effectiveness. The outcome of knowledge sharing is the creation of new knowledge and innovation that will improve organisational performance. Organisations sometimes make deliberate efforts to encourage employees to share knowledge, which enables them to maintain the role as an intelligent organisation in a technologically sophisticated environment (Abdullah & Haron, 2013; Nooshinfard & Nemati-Anaraki, 2014). Therefore,

knowledge sharing is an important unit of the knowledge management system in any organisation and in HEIs as well. (Sohail & Daud, 2009).

In addition, Davenport and Prusak (1998) point out that knowledge sharing can be important and influential for the success of organisations due to the contribution of knowledge utilisation (Syed-Ikhsan & Rowland, 2004). This leads to the aim of this research, which is to carry out an investigation into identifying the influential organisational elements for social media platforms based on knowledge sharing.

Knowledge sharing is more appropriate for informal interaction. It requires mutual trust before interaction has been formed. This is supported by Biejerse (1990), for whom active communication comes from actively exchanging ideas.

Nonaka and Ichijo (2007) claim that 'originating' occurs when an individual and 'face-to-face' activity happens at the same time. For the individual, it involves trust and commitment of time to share experiences and feelings through socialisation. When face-to-face meetings happen, it allows tacit knowledge to occur. Meanwhile, 'dialoguing' refers to the collective and face-to-face activity, both of which lead to externalisation. 'Dialoguing' involves the individual as the mental model to share and convert knowledge to common terms before the articulation is accomplished. Indirectly, self-reflection happens within the specified knowledge and also within the capabilities of dialoguing the knowledge. 'Systemising' includes collective and virtual interactions in context for combination. It involves the sharing of existing explicit knowledge within the organisation, which is viewed as a collaborative environment. Lastly, 'exercising' occurs through the individual within the virtual interactions in the context of internalisation. It involves synthesis for important and reflective action.

In conclusion, an overview of knowledge sharing, the concepts of knowledge, knowledge transfer have been discussed from various perspectives and for this research context; the next section looks at issues of knowledge sharing within the context of HEIs.

2.2.6 Knowledge sharing within the context of Higher Education Institutions (HEIs)

Knowledge is a basic asset for higher education institutions (HEIs) as in business organisations. Knowledge sharing and the utilisation of social media platforms between academics and HEIs

is the theme of this thesis; thus, the HEI landscape is important in this chapter as a context for knowledge sharing. This is followed by an investigation of influential organisational elements of knowledge sharing that have been identified in the literature as particular to sharing in HEIs.

Knowledge management and knowledge sharing in the business sector has been extensively discussed by many academics and researchers (Syed-Ikhsan & Rowland, 2004). However, few studies can be found in the literature concerning HEIs, as Ouakaouak & Ouedraogo (2019) have asserted.

HEIs are imparted with an important responsibility of managing knowledge production and distribution whilst efficiently responding to the constantly changing environment. Thus, knowledge sharing is inevitably a challenging and important task for members of HEIs engaged in knowledge work (Tan, 2015). HEIs are tasked with an important responsibility of managing knowledge production, distribution and the application of the knowledge acquired to efficiently respond to the constantly changing environment. Therefore, HEIs are not only required to create knowledge quickly but also to acquire and apply it quickly to gain a competitive edge (Syed-Ikhsan and Rowland, 2004; Yang, 2007) hence making knowledge sharing an inevitably important task for members of HEIs in knowledge management. According to Sohail and Daud (2009), sharing of knowledge is most essential in knowledge-based organisations like HEIs due to the fact that most of the employees are knowledge workers. Knowledge sharing in an educational system ensures that academic staff is updated from time to time with the latest knowledge. HEIs indeed play a fundamental role in knowledge creation. The implicit knowledge created by academics is embedded in their minds and constitutes the storehouse of educational institutions intellectual capital. Yu, Lu, and Liu (2010) mention that the HEIs are no longer just providing knowledge to the students but are also managing and blending the existing knowledge as references for the next generation.

In HEIs, sharing knowledge becomes an important process that must be completed to maintain sustainability and achieving a competitive advantage in its role as a centre. The success of knowledge management in other organisations is, according to Cronin (2000), no guarantee of its success in academia despite the knowledge-intensive character of higher education institutions. This is because they are neither businesses, voluntary organisations, nor professional practices, although essentials of all three do exist in higher education institutions. Despite a lack of research into organisational elements on knowledge sharing in higher

education, some elements such as organisational culture, structure, strategy, people, motivational support, skills, and technology have been studied, and these are discussed in the following sections.

Most studies state that knowledge sharing is vital to the success of knowledge management practices in all organisations (Chen & Hsieh, 2015; Kamhawi, (2012); Ismail Al-Alawi, Yousif Al-Marzooqi, & Fraidoon Mohammed, 2007; Wang & Noe, 2010) inclusive of HEIs. Fullwood et al. (2013) define knowledge sharing in terms of capturing, gathering, organising, analysing, and sharing the knowledge of academics that exist in the HEIs and making that knowledge available to other individuals in HEIs. Effective knowledge sharing is essential for the institutions to benefit from the knowledge its employees have generated. It is a compulsory factor for almost all organisations, communities, and societies. The benefits of it to organisations are noticeably clear. HEIs may use this asset to improve their performance by giving employees better access to knowledge and helping them using the knowledge to increase productivity and performance (Kidwell et al., 2000). Failure to make full use of knowledge sharing may cause serious organisation problems (Alias, Abbas & Nordin, 2016).

It is a fact commonly acknowledged that HEIs is the ideal place for knowledge creation (Cranfield, 2011). As creators and producers of new knowledge, they are the best places for practising the knowledge management process. Universities are expected to be places where knowledge is shared freely among academics. However, few pieces of research view knowledge sharing within universities as places where academics acknowledge the importance of knowledge sharing and commonly exchange knowledge with colleagues in their day-to-day activities (Dokhtesmati & Bousari, 2013; Muda & Yusof, 2015; Sohail & Daud, 2009). As a matter of fact, the reality demonstrates that, currently, knowledge sharing is scarcely present within HEIs (Al-Kurdi et al., 2018). The lack of desire or willingness to share knowledge appears to be a prevailing problem in academia. Goh and Sandhu (2013) express concern about the fact that academics seem to place a higher priority on individual scholarly achievement and teaching than on sharing common visions toward university goals and objectives. There seems to be a tendency for academics to be independent, individualistic, and autonomous while maintaining an objective distance from the work of their peers (Kwong & Sandhu, 2010). The tendency for academics to actively limit their knowledge sharing is especially more prevalent when these individuals have specialised, unique and important knowledge that others do not

possess (Nooshinfard & Nemati-Anaraki, 2014). After all, hoarding knowledge and looking suspiciously on knowledge from others are natural human tendencies (Wiig, 2012). Focused mostly on self-preservation instincts, people appear to be unwilling to share knowledge because they perceive knowledge as a valuable commodity that cannot be distributed freely (Ipe, 2003). In the case of higher learning institutions, many academics fail to realize that in actual fact, efficient scholarly collaboration among faculty members would increase their effectiveness instead of hampering it (Sohail & Daud, 2009). Furthermore, it would also contribute to the generation of organisational capabilities vital to a university's performance (Muda & Yusof, 2015).

Nevertheless, a significant amount of research has been devoted to issues of formal and informal knowledge sharing within industries (Chong & Besharati, 2014; Okoroji, Velu, & Sekaran, 2013; Willem & Buelens, 2009). Currently, knowledge sharing among academics is generally confined to sharing of written documentation in books or scholarly journals, sharing of knowledge in the more formal setting of workshops or seminars or the more informal sharing which takes place within communities of practice (Kwong & Sandhu, 2010).

Shabrina and Silvianita (2015) identified the various modes of knowledge sharing embedded within the culture of the organisation. They found an organisational culture which provided opportunities to share knowledge was a factor which explained 54.8% of the variance in their data analysis and that 17.4% of the variance was explained by factors such as working culture, employee attitudes and their motivation to share. From these findings, it can be concluded that HEIs need to improve communication between lecturers to create better opportunities to share knowledge. As such, the various new technologies, the foremost of which is the Internet, may become important entities to support knowledge sharing.

Accordingly, the aim of the current study is to discover important and influential organisational elements related to social media platforms that are used in developing and effectively accomplishing knowledge sharing in HEIs.

2.2.7 Barriers to sharing knowledge in HEIs

The unwillingness to share knowledge due to loss of status or power in organisations, in general, is stated by Tippins (2003). This can be a more significant factor in HEIs because of

the emphasis on publishing primary research which is a highly individualist undertaking. Nevertheless, Rowley (2000) points out that producing and distributing knowledge does lead to recognition.

Some further barriers to knowledge sharing suggested by Tippins (2003) are:

- i) A lack of interest amongst faculty members who have become disengaged and sometimes use the tenure system as an enabler for this behaviour
- ii) Conflict amongst faculty members
- iii) The expertise possessed by some faculty members is not comprehensible by others
- iv) Lack of face to face contact and working from home inhibits the building of social knowledge sharing relationships and limits the opportunities for tacit knowledge exchange
- v) Academics may be unaware of appropriate sources of knowledge
- vi) Balancing workload commitments: although the workload of HEIs has increased in recent years the same point could equally apply to other organisations, thus time has become more of an issue.

Cronin (2000) also suggests that the introduction of any new or different way of working is problematical, given the dislike for planning initiatives from the top. Naturally, this would be further compounded by the existence of departmental subcultures and the tradition of academic freedom already discussed.

In addition, the phenomenon of star professors (Cronin, 2000; Rowley, 2000) has meant that their loyalty lies very much with their own career aspirations rather than the employing institution, through the focus on rankings (Cronin, 2000). However, Rowley (2000) suggests that working in teams can be more prevalent in some departments, for example, for pooling talents for a scientific project.

Calabrese and Shoho (2000) believe that HEIs personnel may be suffering level one anxiety in the face of change, which according to Schein (1994) creates a sense that the changing situation is unstable and out of control, and definitely less acceptable than the old ways. A main contributory factor to this situation in HEIs is that they may not have kept in touch with their environment or the demands for change which it produces.

2.2.8 Examples of Impact of the Coronavirus (COVID- 19 Outbreak) Pandemic on the Phenomenon of knowledge sharing in educational organisations

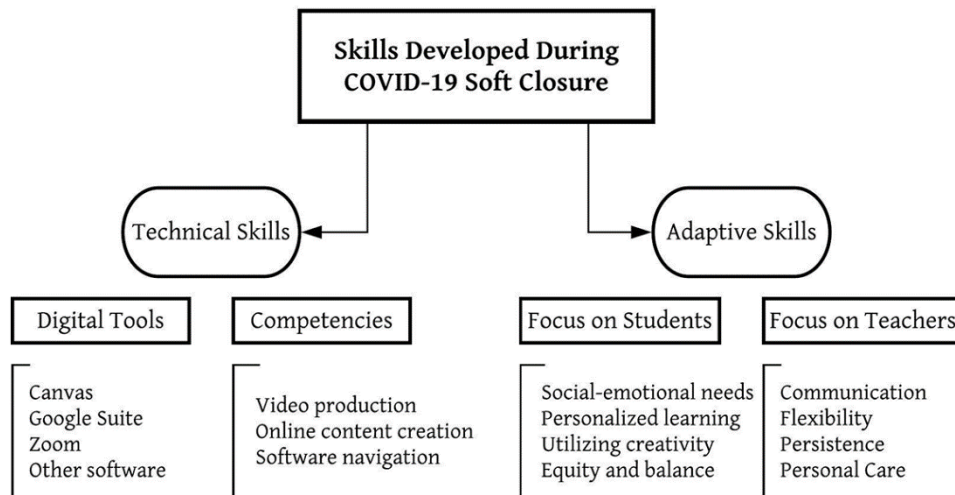
In a matter of weeks, the coronavirus (COVID-19) pandemic caused a global crisis affecting all aspects of social life and resulted in closure of educational institutions changing how students are educated around the world. In addition, the coronavirus (COVID-19) pandemic has stimulated a corresponding rise in research by many scientists across all disciplines. As a result, there is evidence that education has changed dramatically, with the distinctive rise of e-learning, whereby teaching and associated academic related activities are undertaken remotely and on digital platforms forcing a shift in the culture of knowledge sharing per se into online spaces. This section provides an insight into how some educational institutions had responded to change for the better - and the worse - in the long term. In particular, consideration will be assigned to the impact on the Coronavirus (COVID- 19 Outbreak) Pandemic on the phenomenon of knowledge sharing among academics in HEIs.

Interestingly, studies such as Justis et al. (2020), contribute new understandings regarding the delivery of elementary education online during the COVID 19Pandemic and share the approach of shifting the culture of knowledge sharing for teaching and learning, not just content, into online spaces. In particular, the study identified five specific forms of participation and community practices that administrators, teachers and staff used to preserve the culture through the transition to online working, including a “situation room,” daily staff meetings, leveraging existing expertise, openly sharing ideas and knowledge and preserving place-based learning online. as The authors (Justis et al. (2020) acknowledged that this pandemic induced transition was unique and, hopefully, a single moment in history, but by separating pandemic-related issues they were successful in their attempts to refine principal insights that would inform elementary educators’ transition to online teaching more generally. Justis et al. (2020) presents two skills further developed by the staff during the COVID 19 pandemic. Although Justis et al. (2020) stated that as a small school they had developed good communication skills actively working collaboratively to achieve the mission of the school they had recognised that:

“A key cultural move we made during the shift was to encourage and increase this type of collaboration from a distance. ... we had the collective intelligence necessary to make this transition, but these skills needed to be quickly strategically assigned.” (p. 6).

The skills identified were technical skills and adaptive skills as illustrated in Figure 2.2 below.

Figure 2.2: Skills developed by teachers during COVID-19 (Source: (Justis et al. (2020)



The technical skills addressed included the use of digital tools including canvas, Google Suite, Zoom and other software and the competencies included Video production, Online content creation and Software navigation. while for the adaptive skills development consisted of focus on students and academic staff. It recognises the need for further practical refinement to develop the skills as a process that helps in free sharing sessions which helped to break down barriers between school and home and maintain the culture of place-based learning. An additional important comment from the authors was that this cultural transition involved a willingness to embrace knowledge sharing which “... opened up a new dimension of vulnerability between teachers and students, which helped to break down barriers between school and home and maintain our culture of place-based learning.” (Justis, et al.. 2020, p. 7)

Similarly, Majanja (2020) presents findings from research on “The status of electronic teaching within South African LIS [Library and Information Science] Education” and found most academics reported they are fairly well prepared to face the impact of COVID-19, which has forced all universities to turn to virtual or online delivery. Most academics reported employing ‘self-determined’ learning strategies to up skill themselves and were quite confident about their competency in e-teaching. However, some universities were found to be deficient in providing sufficient ICTs and e-learning guidelines and to have inadequate resources to support academics in their endeavours to continually improve teaching and knowledge sharing.

Majanja (2020) acknowledged that the research was limited as it was focused on a ‘basic level investigation’ and was ‘time bound’ nonetheless adds some insights into how some educational institutions had responded to change by raising awareness of good practice and identifying requirements for improvements moving forward in the long term. The evidence also makes some contribution to the body of evidence of an increased use of electronic social media platforms in response to the Covid-19 pandemic as an essential means of establishing social relationships and maintaining communication. Thus, highlighting that knowledge and communication are inseparable in learning and knowledge sharing.

Besides that, Lytvynova and Pinchuk (2018) found social media platform had a powerful impact on basic processes of education such as transferability and sharing of learning and acquisition of skills. Nonetheless as well as observing that social media platforms not only promote the autonomy of teaching and learning it can also create positive motivation for learning, improve the quality of learning, improve assessment practices and enhance record keeping of educational achievements. The social media platforms could also be used in ways previously unexplored, to develop critical thinking and skills in summing up, comparison, synthesis, specification, classification, analysis, inductive reasoning, deductive reasoning and generalisation of phenomena.

During the global pandemic and the economic downturn organisations had to respond and adapt. Unfortunately, some organisations were woefully unprepared to build an adaptive workforce able to navigate and overcome impending obstacles. The organizations' workforce strategies were unprepared for an accelerated future-of-work reality. Likewise, as a result of pandemic , HEIs are having to make an unexpected shift to remote working. One of the significant changes is the lack of face to face contact and the impact of the pressure for academic staff to actively engage in knowledge sharing. The recent study by Georgiou, Mittas, Angelis, and Chatzigeorgiou (2020) during the global pandemic focused on the intensity of knowledge sharing posts “..in a “Q&A” portal such as *Stack Overflow* (SO).” (p.1) COVID-19 Pandemic. Georgiou et al. (2020)state that in many HEIs, academic staff forced to work remotely may struggle,. may not be able to access documents and information stored on local area networks., may not be able to engage in question and answer sessions when they have no direct face to face contact with colleagues and could struggle to remain on task without the structure of in-person meetings. Georgiou et al. (2020) state that the rationale for their “...work

is based on our own observations and our intuitive perception of the IT activities in demand during the outbreak.” (p.1).

Georgiou, et al. (2020) acknowledge that the research was focused on “...*the interest of scientific software developers on Covid-19 related topics based on SO posts to shed light into their concerns...*” (p.8). However, the study also makes some valuable contribution to the body of literature reviewed for this study of ‘Organisational Elements on Social Media Platforms Based Knowledge Sharing of Higher Education Institutions (HEIs) in Malaysia’ particularly some elements which exerted a significant increase in the use of IT supporting knowledge sharing. Among these elements, were the **organisational strategies** which demanded distance working of academics during the pandemic. Driven by this shift to distance working soon led to increased and massive demand for IT that could assist the delivery of teaching, learning and research activities. Another important element is the **appropriate technology infrastructure** accessible in the study by Georgiou et al. (2020) “...*found in SO, a well-known Q&A forum. ...popular for knowledge sharing among software development ...*” (p. 3). The particular group of **people** involved are another key element that played another important role in knowledge sharing because it may influence each of the other individual’s behaviour towards knowledge sharing activities. Georgiou et al. (2020) study findings clearly supports the importance of people as an element for successful knowledge sharing by “*Acknowledging that software developers routinely resort to open ‘question & answer’ communities like Stack Overflow to seek advice on solving technical issues, ...*” (p. 1).

The review of the study by Georgiou et al. (2020) has identified how elements such as organisational strategies, appropriate technology infrastructure and people were elements which exerted a significant increase in the use of IT software by academics to support knowledge sharing. These elements are amongst other organisational elements considered to exert significant influences on knowledge sharing which will be discussed in more detail in the next section.

2.3 Organisational Elements considered to exert significant influences on knowledge sharing

Organisations could be viewed as systems of core, elaborating, independent and inconsistent elements and the interconnections among all or part of these elements. The elements representing resources, activities, processes, networking technology and policies are essential

for the viability of the organisation (Carmeli & Tishler, 2004). Organisational elements could be defined as areas in which results, if they are satisfactory, will ensure successful competitive performance for the organisation (Syed-Ikhsan & Rowland, 2004). This definition was the most suitable definition in this research context.

To this end, previous research has led to the identification of several organisational elements which are considered to exert significant influences on knowledge sharing. Among these elements, there is a consensus among the authors that seven are especially important in terms of their influence on organisational culture in the context of knowledge sharing by using social media platforms, namely, organisational culture, organisational structure, management support, technology infrastructure, skills, people and organisational strategy. Each of these is examined in the following sections.

2.3.1 Organisational Structure

The organisational structure describes a compact outline of works and actions (Skivington & Daft, 1991). It relates to the scope to which the decision execution authority is paying attention at the highest ranks of the firm (Caruana, Morris & Vella, 1998). Centralisation is the most-studied dimension (Rapert & Wren, 1998), although few authors consider that it has a positive impact on organisational usefulness (Ruekert et al., 1985).

Organisational structure provides the frames through which individuals see their world. An organisation's structure is closely tied to its strategy, and the two are deeply intertwined (Steiger, Hammou & Galib, 2014) Due to changing demands, the organisational structure has been undergoing successive changes which have resulted in a return to a more managerialist paradigm (Randle & Brady, 1997). Undoubtedly, the rise of a new managerialism and other factors such as market forces, government policy, the previous administration and possibly building architecture have all had their influences on the culture and structure of HEIs and their departments. Udagedara and Allman (2017) emphasise the urgency of considering organisational structure and administrative systems for the purposes of augmenting operational efficiencies and further optimising existing capabilities.

The structure of the HEIs refers to the activity of task allocation, coordination and supervision, which are directed towards the achievement of organisational goals (Syed-Ikhsan & Rowland, 2004). It can also be considered as a prism through which to view the organisation or a perspective through which individuals perceive their organisation. The structure for an open

and flexible organisation needs to be such as to facilitate the sharing of knowledge because some policies and procedures limit the transfer of knowledge and the generation of new ideas. In this study, structure refers to the extent to which academic staff feel the knowledge status information and an organisational structure that exists in HEIs allows academic staff to share knowledge.

Grant (1996) emphasised that organisational structural arrangement of the 'knowledge based firm' (p.118) recognised the importance of "... *the [re]distribution of decision making authority in the firm...* and in particular recognising that "Decisions requiring tacit and idiosyncratic knowledge planning...become increasingly decentralized." (p.118) as knowledge reused in employees. Grant (1996) offers insights into how organisations can adopt structural arrangements for knowledge sharing to outline figures and frequencies of interaction among organisational employees, to stipulate places of the decision-making process which influence competence and efficiency to incorporate innovative thoughts. Knowledge sharing therefore carries out the structural contact on organisational usefulness through the manner in which the knowledge is planned, the knowledge sharing actions are synchronised, and the degree to which the measures that are implanted in the daily work routine influence the value and competence of the organisational performance. Moreover, Grant (1996) added that arrangement does not assume organisational efficiency alone but that the organisational structure should ensure that "*The primary task of management is to establish coordination necessary for integration ...of the specialist knowledge resident in individuals ...*" (p. 120). .

In a broader context, Alawamleh and Kloub (2013), state that organisational structure is the creation or shape and determines the internal structure of the relationships prevailing in the organisation. it illustrates the divisions or units of the main and branch undertaken various actions and activities required to achieve the objectives of the organisation (Hammoud,2002). It includes the size of the organisation and style of power and decision-making style, so that the nature of the organisational structure and personnel in the organisation look to affect their ability to participate and creativity (Willem & Buelens, 2009) Steiger et al. (2014) mentioned that it have been defined the organisation structure as the formal appliance through which the management of the organisation by identifying lines of authority and communication between superiors and subordinates it is a system of authority and accountability relationships between organisational units which determines the shape and nature of the work required for the organisation. arrangement of mutual relations between the parts and functions of the

organisation, this concept refers to the hierarchy of expert for the purpose of effectively goals (Mahmoudsalehi, Moradkhannejad & Safari, 2012).

In an organisational context, the most important elements of the organisational structure are monitoring divisions and different units, specialisation in the work and the presence of specific tasks, and the scope of supervision and lines of authority, responsibility, and decision-making positions in terms of centralization and reorganisation. The process of designing the organisational structure become an effective tool to facilitate knowledge sharing and accelerate the benefit from the rationalisation of decision making by converting tacit knowledge to explicit knowledge to expand the organisational knowledge base (Althahr, 2009).

Most organisational structures suited for knowledge sharing are those that are flexible and adapt to the environment and improve communication and the ability to adapt and respond quickly to changes (Alawamleh & Kloub, 2013). The efficiency and effectiveness of the organisation is affected by the surrounding environment. Hence the importance of organizational structure (Zarrouk, 1988). However, some studies such as that of Zawawi, et al. (2011) have shown evidence that "...the existence of knowledge sharing culture in Malaysian HEIs is still very low..." (p. 60). Of importance the organisational structure of some of the Malaysian PIHE were unprepared to successfully implement the practice of knowledge sharing and it was essential that "...*barrier factors should be identified and clearly understood before knowledge sharing is being practiced in that organization.*" (p.60).

2.3.2 Technology Infrastructure

Technology provides the tool to do tasks more effectively. In the literature, technology was viewed as a central element to the flourishing accomplishment of knowledge sharing. However, advantageous technological tools are in contributing to knowledge sharing, it is the technology infrastructure which facilitate the processes to share and exchange interactions with other individuals which are still emphasized.

Al-Kurdi et al. (2018) highlight the important role of technological support and infrastructure in facilitating knowledge sharing, though they regarded it as secondary to trust and a good knowledge-sharing culture. The authors draw attention to the development of technology in providing a platform for people to engage in activities such as posting questions and answers "... *found in SO, a well-known Q&A forum* Georgiou et al. (2020), participating in discussions, messaging, storytelling and sharing experiences. Technological infrastructure, knowledge

sharing culture, education, plans and procedures and research and development are the base set for facilitating knowledge sharing (Naeem, 2020).

Because much knowledge appears in explicit form which can easily be codified, technological solutions required for knowledge sharing can be established (Hislop, 2009). In fact, Skyrme (1999) suggests that the knowledge which is generated through codification, storage and dissemination actually attains value. Thus, technology is considered as a principal instrument for knowledge sharing in the current research. This technology permits access to knowledge dissemination through network infrastructures in terms of groupware and electronic databases. Although Rowley (2000) sees social media platforms as providing a comprehensive forum for sharing knowledge, significantly, this relates principally to the management of explicit rather than tacit knowledge.

There are studies on knowledge sharing in the context of HEIs which have found that technological elements such as social media platforms could influence and enhance collaboration of sharing knowledge amongst academics in HEIs (Sulaiman, Zaibidi, Omar & Alias 2016). It was found that technological elements display a strong influence on the use of social media (Wahlroos, 2010) and also that technological support significantly influences knowledge sharing within the HEI context.

Thus, the study by Hung and Yuen (2010) explored the effective and systematic management use and sharing of advance information technology, such as, email and intranet can greatly help across an organization to capture and share knowledge. However, the technology itself is not the key to successful knowledge sharing because its development of a knowledge sharing culture is more about the willingness of the staff to share, teach and learn knowledge. Moreover, technological features also deserve to be considered and technical support and assistance considered essential as human assets for knowledge sharing. Technology has an important role to play in improving the effectiveness of knowledge sharing (Shuaibu Hassan & Ishaq Oyebisi, 2014)

Universities are expected to be the big generator of information and knowledge, so they need to engage strongly in knowledge sharing that can enhance the performance of education and research in terms of their significance to the community, and thus contributing to enhanced economic growth

Cooper (2001) stated that HEIs are using state-of-the-art IT to form collaborative, knowledge dedicated workgroups and communities for specific projects. More recently a case study was conducted using a faculty of the National Open University in India investigating how the concept of technology infrastructures were implemented for knowledge sharing systems at all levels of that HEIs by adopting various technologies, including the Internet, Web-based portals, databases, and teleconferencing (Santosh & Panda, 2016). Santosh and Panda, (2016) also studied the impact of organisational context and technology on employees' perceptions of knowledge-sharing capabilities within organisations. In their literature review they identified and analysed three major mechanisms for employee knowledge sharing: (1) sharing knowledge in interactions among employees, (2) sharing knowledge with other employees in teams or groups, and (3) acquiring knowledge held by other divisions. The technology capability deals with tools and means that enable flows of knowledge efficiently.

Nevertheless, Davison, Ou and Martinson (2013) in focusing on exploring the use of interactive information technology (IT) applications for informal knowledge sharing in two public relations firms in China discovered a comprehensive process of innovation in knowledge sharing highlighting it indicates the consideration of a broader organisational perspective such as management and innovation. With regard to the lack of success in the adoption of educational technology initiatives in HEIs Kandiri and Mugand (2013) exploratory research found that when “...*organizational factors such as monitoring and evaluation and team leadership alongside management, financial availability, organisational culture by stakeholders ...*” (p.1) was adopted a new technology infrastructure emerges and then, as it become more widespread subsequently leads to a “...*technological innovation implementation to and knowledge sharing in the HEI. Interestingly, Kim and Lee (2006) also explored and analysed the organisational context and IT on “...employees’ perceptions of knowledge-sharing capabilities in five public sector and five private sector organizations in South Korea”*. (p. 370). They found that the organisational structure developed (“...including performance-based reward systems...”), (p. 370). Interestingly, the study highlights the employee usage of advanced IT applications and network systems facilitate employee knowledge sharing, demonstrating that employees are the main driver of knowledge and information sharing in organisations. Moreover, they add that successful good coordination linking knowledge sharing and technology is key to enhancing possibility of successful in organisation.

Technological advances have greatly helped the growth of knowledge sharing (McInerney, 2002). Knowledge sharing has flourished as the technological element have increased in efficiency, reliability and cost-effectiveness (Schneider, 2009). Technologies play a role in the success of sharing knowledge in an organisation and can be measured as efficient way in terms of capturing, preserving and distributing information.

According to Hendriks (2001), ICT such as social media platforms could offer technology elements to help the knowledge sharing processes within a corporation. If social media platforms proficiencies are properly assessed and defined it will support and facilitate knowledge sharing procedures, such as, knowledge capture, prevention, recovery, transferring and collaboration, distribution, and updates that the organisations will turn to organisation prosperity. Teece (2000) also agrees that the technology elements help knowledge sharing and achieve knowledge transfer within the firm. Moreover, in technology infrastructure it is emphasised that codifying knowledge by making it clear helps to have complete follow up of persons with particular skills and enables speedy interaction between them. Furthermore, in technological know-how, supporting adequate internal training for the employees is a must to allow the employees to have knowledge sharing performance and to create knowledge resources. In addition, the more sophisticated the person will be who is using the technology tools, the better the formation and sharing of the knowledge will be. Based on the evident views mentioned above, Alhammad, et al. (2009) indicated technology therefore is concluded as a major source in incorporating a flourishing knowledge sharing culture in an organisation because of its most efficient and fast means of capturing, preserving, transferring and distributing data (Abdullah, et al.,2015). Technology allows us to communicate social and organisational issues in real time from any place on the planet, but still can limit our ability to communicate with people in our organisation which hinders the flow of knowledge development within the organization. Furthermore, Yu et al., 2010 stated technology can only be described as an competent only while human factor is the key to effective and efficient knowledge sharing.

2.3.3 Organisational Strategy

Daft (1995) states *"The organization's goals and strategy define to purpose and competitive techniques that set it apart from other organizations"* (p.21) Organizational strategy is a plan of action that *"...describes the resources allocation and activities for dealing with the*

environment ...and ...” (Daft, 1995: p. 21) that maps “...*the route for reaching the organisation’s goals*”. (Daft, 1995: p. 21) and vision.

Furthermore, the success or failure of a knowledge sharing endeavour is dependent on the extent to which such an endeavour is integrated into the organisation’s goals and strategy. The communication of these organisational goals and strategy to all employees is principally a senior managerial leadership task, and the strategy itself is understood as “...*a plan for interacting with the competitive environments to achieve organisational goals*” (Daft, 1995:49). Alternatively, in the perspective of Zheng et al. (2010) organisational strategy is simply stated as the plan which the organisation devises in order to effectively deploy its knowledge assets. Thus, knowledge management is, partially at least, the implementation of that strategy through clearly defining what constitutes strategic knowledge, guiding the transfer of critical knowledge and ordering key knowledge exploitation efforts so that they are directed towards the efficient achievement of strategic goals.

Thus, having a clear and well-planned strategy is a principal driver of effective knowledge sharing (Liebowitz & Yan, 2004). Such a strategy provides a foundation for the organisation to effectively arrange its capabilities and resources in order to achieve its knowledge-sharing goals. Whilst a number of strategies for implementing knowledge sharing such as networking, lessons learned and communities of practice (O’Dell et al., 1999; Liebowitz, 1999; Soliman and Spooner, 2000), an effective strategy is one which best fits the organisational context in order to optimise the benefits to the HEI. The organisational strategy also needs to support the business interests of an organisation as well as issuing an attractive shared vision of what constitutes the pursuit of knowledge. This vision should be viewed as credible and achievable plan of action spelt out in clear aims and objectives which are understood and subscribed to by all involved.

Bergeron et al. (2004) showed that “...*a powerful organisational strategy that is high on enquiry, protecting and a practical approach resulted in better performance*” (p.24). The blend of the four aspects shows the extent to which the organisation understands its planned directions rather than its projected strategies. According to Venkatraman (1989: p. 57):

Protecting defines a self-protective behaviour that is confirmed through cost drop and effectiveness gaining methods while futurity that refers to of time considerations shows mainly as planned decisions, and relatively focuses on long-term success versus competence considerations at the current time. However, pro-activeness refers to pro-

active behaviour, for example, participation in developing industries, exploring market opportunities and being experimental with potential to altering environmental traditions.

Similarly, Senge's (1990) idea of 'learning organizations' are organisations where new and expansive patterns of thinking are encouraged, where collective aspiration is set free, and where people are continually learning how to learn together. Organisations that do extremely well will be the ones that have grasped the significance of implementing the organisational learning process and have utilised people's commitment and capacity to learn at *all* levels in an organization. Watkins and Marsick (1996) pointed out that a practical move toward new knowledge is a must to establish a learning organisation. Therefore, the organisation's plan to create and to organise knowledge assets is considered as an organizational strategy. To a degree, knowledge sharing is able to have an influence on strategy through describing strategic knowledge. In this case, synchronizing critical information sharing, guides the hard work involved in the utilization of key knowledge results in improved efficiency. Apart from the course of knowledge sharing, planning influences organisational actions through other means that include control systems and resource-sharing methodologies.

Nevertheless, as Gupta et al. (2000) point out that companies who develop an organisational strategy to use intellectual capital to improve their capacity to add value to the business require a plan related to knowledge sharing that involves actively managing knowledge. In such a case, individuals try to clearly change their knowledge into a mutual knowledge repository, such as a database, and in addition to recovering information they require that other persons have given to the repository. However, in such instances wherein skilful individual(s) are enabled to offer insights to the specific individual or people who need it, it is known as the voluntary move toward knowledge sharing (Snowden, 2002). Based on the views, it is clear that a developed and effective organisational strategy allows an organization to convert strategic consistent desired performance level results. Therefore, an organisational plan developed through investigation, protecting and a implementing a proactive approach definitely contributes to organisational effectiveness in knowledge sharing. Moreover, knowledge sharing partly depicts the link between organisational plan in which technological changes, interactive learning, knowledge development, integration and application of knowledge are the focal elements for organisational culture of knowledge sharing and organisational efficiency (Grant, 1996).

2.3.4 Organisational Culture

McDermott and O'dell (2001) state that organisational culture is a key element of managing organisational change, renewal, and improvement. Inappropriate culture is generally regarded as the key inhibitor of effective knowledge sharing (Othman & Egbu, 2009). However, it must be admitted that it is difficult to change the culture of an organisation. Nonetheless, it is imperative that organisations move towards a knowledge-oriented culture and that all members in the organisation have to know the organisational vision and goals (Baker, 2002). With knowledge of the organisational vision and goals, will allow employees to challenge barriers to developing an organisational cultural for sharing knowledge throughout the organisation. In this study, the organisational culture as defined by Bezweek and Egbu (2010) is adopted which sees it as the shared patterns of behaviours and interaction in the organisations and moving towards understanding what has been learned.

Cabrera and Cabrera (2005), state there are two distinct ways that organisational culture can influence knowledge sharing

First, it can influence knowledge sharing by creating an environment in which there are strong social norms regarding the importance of sharing one's knowledge with others. ... A second way in which organizational culture influences knowledge sharing is by creating an environment of caring and trust that is so important for encouraging individuals to share with others. (p. 9)

De Long and Fahey (2000) have also stated that organisational culture plays an important role in the creation, sharing and use of knowledge and one of the major ways in which the organisational culture can influence knowledge management practices is by establishing norms concerning sharing knowledge. The second way in which organisational culture can influence knowledge sharing is by establishing an environment of caring and trust which is so important for encouraging individuals to share with others.

Some studies have drawn attention to how organisational culture is related to the motivation and trust which are needed to encourage knowledge sharing practice in the HEIs. Ramayah, Yeap, and Ignatius (2013) in order establish and encourage trust within teamworking in HEIs has often required each individual to provide better performance. In order to develop the degree of trust among team members within the institutions, management has to form an organisation's social interaction culture (Othman & Egbu, 2009) and d develop opportunities for individuals to interact and be closely familiarised with each other.

According to Cohen and Prusak (2001), a high level of employee trust can lead to better knowledge sharing. In addition, social media platforms can assist employees to remain focused on and in conformity with the objectives of the organisation by facilitating the sharing of resources (Leonardi, Huysman, & Steinfield (2013). Al-Kurdi et al. (2018) shows how trust plays a pivotal role in HEIs by facilitating the acquisition of levels of competency in managing, sharing and employing information and knowledge that positively influences the academic staff ability to achieve organisational goals and objectives in sharing knowledge. Al-Kurdi et al. (2018) further stress that by nurturing the element of trust among academic staff, this helps to enhance institutional performance and capabilities.

Goodfellow and Lamy (2009) outline four major areas of inquiry associated with organisational culture contacts which include (1) education beyond culture and borders (2) computer-mediated interaction by marginalized people or group (3) the evolution of new types of knowledge creation, and (4) the development of social media platforms events and their usage for academic purposes which will be of particular interest for HEIs involved in the creation of learning cultures and challenges for knowledge sharing (p.27).

Dahlia (2008) notes that the organisational culture values of Malaysians include such factors as honesty, knowledgeableness and trustworthiness. This refers to the fact that information and knowledge sharing are based on values that are crucial to knowledge development. On the other hand, a culture which surrounds us, is deep-seated and pervasive in such a way that it is accepted as our way of life. On that note, Shu and Chuang (2011) state that social media platforms affect the daily life of contemporary society.

Alhammad, et al. (2009) conducted research into knowledge sharing in the context of universities in Jordan and found that academic staff members were less ready than administrative staff members to share knowledge. The reluctance of academic staff to engage in knowledge sharing was attributed to them having fewer opportunities for engaging in activities which called for such sharing, and this was particularly true of their reluctance to share on social media platforms. Although a top-down approach was adopted whereby supervisors encouraged knowledge sharing, success of such ventures depended on the academics' willingness to share their knowledge with others. It was concluded that a more successful approach would be to encourage internal social exchanges. The challenge, according to the researchers, was to find ways of engendering mutual understanding and trust. This was

expected to take time rather than seeing it as a quick fix solution. Perceived organisational support was an important element in motivating academic staff to share their knowledge, despite, the motivational approach which focuses on the gains users expect to have by using a medium. Thus, connections come with costs as well, whether it being time, effort, or inconveniences of any kind. The economic principles of a cost and benefits analysis are used to understand social exchange in the Social exchange theory. People display certain behaviour after they make an estimation of the potential gain from it, make a comparison between alternatives, and then select the behaviour that they think will bring them the best returns (Bordia et al, 2006)

Cabrera and Cabrera (2002) elaborate on the issue of cooperation and dilemma in sharing personal insights with other staff clearly suggest that the exchange of information among individuals and groups within the organisation as a requirement for the creation of collective knowledge and collective knowledge is an important source of competitive advantage. Therefore, fostering a rich flow of knowledge exchange within the organisation is an important source of competitive advantage. Clearly, technology such as social media platforms could be one of the elements for successful knowledge exchange. The other, even more, important requisite is that of a social environment which encourages or even enforces knowledge sharing. While the value of sharing knowledge is obvious for organisations, from an individual standpoint, sharing knowledge can carry significant costs which can even add stability to the potential benefits. Social media platforms have allowed groups of individuals to contribute to a knowledge exchange and generated new possibilities and challenges to facilitate collaboration and knowledge sharing (Gaal et al. (2015). Gaal et al. (2019) study explored:

...how internal or external social media technologies are being used for knowledge sharing ...for professional development. ... [and provided] recommendations to the organizations how to foster motivating employees for using social media technologies for work purposes in knowledge sharing.” (p. 185).

Tahir, Guru, & Lubica, (2019) paper examined the growth of social media within organizations and the impact this may have upon knowledge sharing in a particular type of KM tool which enabled the development of a - Community of Practice - (CoP) based discussion groups (KMDG). The social media technologies provided employees with an opportunity to strategically reach out to different groups of people within their CoP, and engage in information communication, knowledge sharing and exchange. The findings of Tahir et al. (2019) provide

evidence that this type of social media technological system had a positive effect on organisational performance.

2.3.5 Management Support

Much of the literature recommends that organisations should support knowledge sharing (Ali & Dominic, 2016). In this study, management support is understood as the facilitation of knowledge sharing, in its many forms, by senior and middle management. In order to successfully manage the development and growth of the knowledge sharing environment, it is necessary to understand both what motivates the majority of the staff members to participate and what prevents them from participating (Corcoran & Duane, 2016).

The support of top management is considered to be important in the successful implementation and usage of new practices, and invaluable in identifying and resolving problems when risks and conflicts arise (Shields, 1995). For instance, many studies have highlighted that top management support is an important factor in supporting new management initiatives in particular the relationship between organisational factors and the effectiveness of environmental management (Kim, 2014; Richard, McMillan-Capehart, Bhuiyan, & Taylor, 2009; Tseng, 2010). It is suggested that top management support is critical in enhancing the effectiveness of environment management processes (Goldenson & Herbsleb, 1995; El-Emam, Goldenson, McCurley, & Herbsleb, 2001). Top level managers who are more eco-friendly than other staff and committed to environmental management are critical in respect of the successful implementation of effective of environmental management processes (Yassin, 2013, The influence of organizational factors on knowledge sharing using ICT among teachers) They understand and embrace the significance of applying environmental management in their organisation, initiate culture change (Naeem, 2020), and reinforce their managerial vision to employees. Top managers establish environmental policies and objectives; encourage communication and training; and provide timely and adequate resources to support the implementation of environmental initiatives (Ahmed & Shafiq, 2014). Top management have an important role to play in convincing employees of the importance of environmental initiatives (Tekleab & Chiaburu, 2011).

Top management's commitment and support for environmental management processes can have a critical impact in enhancing the environmental awareness of staff, motivating environmental performance and changing staff attitudes and behaviour towards environmental

issues (Nobarieidishe, Chamanifard, & Nikpour, 2014). With Ghorbanhosseini (2013) reporting that “internal awareness-raising campaigns and active championing by senior management” were the most effective ways of encouraging environmental behaviour. Similarly, Ahmed & Shafiq, 2014 maintain that the motivation for employees to engage in ‘corporate greening behaviour’ is positively related to the level the top managerial support. Hence, if environmental management initiatives are to be effective top management need to lead by example and motivate employees to act in an environmentally friendly manner (Chamanifard, Nikpour, & Chamanifard, 2014). This relationship is likely to be strengthened when desired managerial behaviours, such as dedicating management time to communicating the importance of environmental management to staff, engaging with lower level employees, and providing necessary resources are demonstrated and practised (Denison & Mishra, 1995)

Equally, Jeyaraj, Rottman, & Lacity, (2006) in their review on 99 IT adoption papers (published between 1992 and 2003), found that top management support is one of the most important elements of an organisation’s IT implementation success (Chong & Chan, 2012). According to Corfield, Paton, Chase, and Ragsdell (2016) top management members are the primary human agency that translates external influences into managerial actions such as changing organisational structures and establishing policies based on their perceptions and beliefs of institutional practices.

It is useful, at this point, to draw a distinction between management and leadership. A leader is one who has a relationship with her/his team and, through this relationship, is able to inspire and motivate the team members in order to work together to achieve the team and organisational goals (Thompson, 2008). In the context of knowledge sharing leadership, Politis (2001) investigated the respective influences of different leadership styles by assessing the extent to which each style impacted on knowledge acquisition. The findings showed that a participative leadership style was more effective than an autocratic style. Due to the high degree of autonomy and empowerment which employees receive in a participative style of management, there is greater freedom for individual employees to find appropriate ways of sharing knowledge when invited to do so. Thus, participative leadership style was found to be more likely to lead to effective knowledge sharing than an autocratic style which was production-driven and found to be negatively associated with knowledge sharing outcomes. Despite these findings, Joel, (2010) found that participative leadership was generally absent

from faculties with more emphasis being placed on control, monitoring and planning – the hallmarks of autocratic leadership style and the new managerialism.

Besides leadership support, interestingly, some studies stated that rewards are often used as a tool to encourage knowledge sharing among academic staff, such as that by Fullwood, Rowley, and McLean (2018) who propose that knowledge sharing will take place only if rewards exceed costs. Reward systems in academic settings have strongly benefitted those who publish regularly (Turner & Gosling, 2012). According to Rowley (1996) academics are positioned on a single salary scale that is influenced by experience and qualifications. Increases in salary are then on an incremental basis, although sometimes increments are used for attainment. External opportunities for extra earnings do exist, but promotion is uncommon. Motivation could be an issue if lecturers move to an academic institution from a sector that utilises performance-related pay (Rowley, 1996).

Furthermore, the reward could be something given or received as a token given in recognition of service, effort, or achievement. According to Wang and Noe (2010), reward and recognition include the elements that can motivate people to share knowledge. In this study, reward and recognition are taken to mean the extent to which an academic staff behaviour is influenced by reward or recognition to be received as a promotion, bonuses, salary increases, recognition of excellent academic staff who have a connection with knowledge sharing by using social media platforms. Kathiravelu and Abu (2015) distinguish that these best-practice organisations viewed it as the means to recognise the value of sharing knowledge, could improve awareness on the significance of teamwork and appreciate the contributions created by the employees. In this way, employee participation is encouraged.

Despite this, most studies acknowledge that reward can support activities that are critical for the organisation and is also relevant for knowledge sharing activities. For example, O'Dell and Hubert (2011) point out that knowledge sharing performance needs to be rewarded and recognised. However, there is no common opinion about what the role of rewards in knowledge sharing is and by which rewards knowledge sharing can be effectively encouraged.

A contrary opinion is presented by Bartol and Srivastava (2002) who see reward systems as created to encourage academic staff to achieve organisational goals through proper performance and behaviour. According to Syed-Ikhsan and Rowland (2004), employees need a strong motivator to share knowledge. It is unrealistic to assume that all employees are willing to easily offer knowledge without considering what may be gained or lost as a result of this

action. Managers must consider the importance of collaboration and sharing best practices when designing reward systems. The idea is to introduce processes in which sharing information and horizontal communication are encouraged and indeed rewarded. Such rewards must be based on the group rather than individual performance (Goh & Sandhu, 2013)

Islam, Hasan, Ahmed, and Ahmed (2011) consider an effective reward system is essential in order to motivate employees to share knowledge among themselves and between different departments because in the absence of proper motivation, some employees may be unwilling to share knowledge due to fear of loss as a result of this action. They suggest that indirect rewards such as appreciation and recognition, play a greater role than the monetary incentives in knowledge sharing.

Reward systems are often designed in many organisations to ensure proper knowledge sharing behaviour. According to Al-Alawi et al. (2007) such reward systems should be aligned with sharing in order to enhance knowledge sharing in organisations. Thus, it is important to explore what rewards should be used in order to directly or indirectly effect an individual's willingness to share knowledge and encourage his or her knowledge sharing in social media platforms.

Further, besides rewards, promotion of staff plays an important part to influence academic staff to share their knowledge (Din & Haron, 2012). Similarly, Corcoran and Duane (2018) argue that rewarding staff by promotion could have perceived benefits that are derived from knowledge sharing activities in HEIs. It can positively influence the staff in HEIs and can lead to a more open, creative and sharing organisation, with an increased sense of belonging and loyalty engendered through participation.

2.3.6 People

The foundation for any knowledge sharing initiatives is people. People create knowledge, new ideas, new products, and establish relationships that make processes work. Therefore, the real advantage of any knowledge sharing initiatives can only be realised by truly empowering the employees. Knowledge is an abstract concept, and the culture for knowledge sharing is very much dependent on the attitudes of the people who formed the culture. Failing to make employees understand the benefit of sharing their strategic knowledge will result in a hesitancy to partake in any further knowledge sharing practices. The main challenge of introducing a new concept is in changing the existing culture to accept the new values. To successfully establish an environment for knowledge sharing, organisations need to undergo a process of cultural

change and socialisation, which requires change management. People is one of the elements that play an important role in knowledge sharing (Muda & Yusof, 2015b) because it may influence each of the other individual's behaviour towards knowledge sharing activities. In this study, the roles of trust, relation communication and training between staff are considered as important dimensions of knowledge sharing.

Many authors, for example Al-Alawi et al., 2007; Zawawi et al., 2011) have indicated that trust and good relations among individuals in an organisation are essential attributes to the successful sharing of knowledge. Likewise, Ali et al. (2014) found that, in HEIs, mutual trust among staff members can facilitate knowledge sharing and can increase effective collaboration between the institutions. Furthermore, Hansen (2002), also states that pre-existing relationships among staffs in HEIs is a factor that can aid easy knowledge sharing amongst them. Team members require the existence of trust in order to respond openly and share their knowledge (Agarwal et al., 2012). Lack of trust between individuals in an organisation creates suspicion and scepticism, as not knowing the intentions of the other individual will not encourage knowledge sharing.

Some authors, such as Alhalhouli, Hassan, and Der (2014) and Andolšek and Andolšek (2015) have indicated in their studies that effective communications, as well as training of staff, are critical for effective knowledge sharing among individuals in an organisation. Communication refers to the interaction between individuals, including through oral conversations or body language to exchange ideas. For knowledge to be shared, balanced support from the management team and academic staff to communicate with corresponding staff are essential to effectively deliver a good service in teaching and learning, collaboration from other industries and many more. Nevertheless, training is usually provided to the employees, and through such training, they have a better understanding of the concept of knowledge sharing (Bartol & Srivastava, 2002). It also provides a common language and perception of how they can define and think about knowledge (Casimir, Lee & Loon, 2012).

The real success will depend and impact on individuals' willingness to share. Thus, the result would be better and more effective to encourage sharing through internal organisational social exchanges. This way, the people will contribute to others commensurate with the contributions perceived made by the others. Then again, it requires the element of a reciprocal arrangement. The exchange relationship develops from a series of mutual exchanges and over time, becomes

a normative pattern of behaviour. To facilitate knowledge creation and transmission within the organisation, top management must show an open mentality in matters of knowledge.

In spite of this, Ali and Dominic (2016) emphasise that an enjoyment feeling can also influence an individual intention to share knowledge with others. As a result, more communication and interaction take place, which indeed enriches the discussion and knowledge sharing. It is concerned with individual attitudes that influence the knowledge sharing attempt. Apart from that, social influence among their colleagues as well would be the main part of elements that influence academic staff to share their knowledge (Yassin et al., 2013). Influence is the capacity to have an effect on the character, development or behaviour of someone or something. In the context of knowledge sharing, social influence refers to the power of human activity in a society that influences an activity. In the context of this study, social influence refers to the extent to which academic staff felt friends, colleagues, students, administrators, and the community around thoughts and emotions influence academic staff to use social media platforms in knowledge sharing.

2.3.7 People Skills

Numerous studies have found a positive connection between training and different adaptable representative of organisation success. Training can be used to enhance self-efficacy levels among employees for sharing knowledge. Particularly, knowledge has become more important, given ever-greater pressure to increase productivity. Several authors propose that organisations should mainly participate in training that provides specific knowledge, as it is difficult to reproduce (Hagemester & Rodríguez-Castellanos, 2019). However, the organisation could be unwilling to invest in either specific or generic training because training can increase employees' bargaining power with a view to obtaining higher salaries (Rajan & Zingales, 1998). However, Cogburn (1998) highlight that the knowledge acquired by means of training therefore allows other knowledge and skill-sets to be developed in the future. Different option categories can also be found in assets of any type, and this is especially so in the case of knowledge.

Despite the fact that training could be represented and acquire set-up that are similar to developed in services for remains. (Dzvapatsva, Mitrovic & Dietrich, 2014). One explanation is presented by Cabrera and Cabrera (2005) that generally training and staff are related to each other for better performance. They suggested four ways by which self-efficacy can be

increased: modelling and indirect learning, role-playing, mastery or success experiences and coaching or verbal persuasion. All of these elements can be included in training programmes to increase levels of employee self-efficacy. Thus, the use of extensive training and development programmes should help to increase general levels of self-efficacy among organisational employees. Consequently, employees will feel more assured of their abilities and will be more likely to exchange and share their knowledge with others. Besides that, training in team building should increase levels of structural, cognitive and relational social capital that will also help to stimulate knowledge-sharing behaviours. Hagemester and Rodríguez-Castellanos (2019) mentioned team-based training will help build relationships that are vital for the transfer of knowledge. Cross-training will facilitate knowledge sharing among employees from different areas by increasing interactions, creating a common language, building social ties and increasing employees' awareness of the demands of different jobs. Thus, any training that emphasises cooperation and builds relationships among employees should increase knowledge-sharing behaviours. Training in communication skills should also help employees to exchange information more effectively.

In the context of a good way of inducing knowledge sharing is to make this type of behaviour critical for career success. At American Management Systems employees understand that 'leveraging' what they know by educating colleagues or helping others is the only way to build their reputation as a leader. This reputation is essential for those who aspire to a leadership position within the firm. In fact, there is a general belief that it is what is shared about what is known and not what is known that gives power (McDermott & O'dell, 2001).

2.4 Social media platforms based knowledge sharing

Currently, social media platforms are becoming valued means for facilitating knowledge sharing and communication, not only on a personal or individual level, but also for organisations. Social media prepares a platform that links people together, provides an opportunity to create and exchange knowledge with others, extracts, develops and distributes knowledge (Guy, 2012). This trend has attracted an interest and significant attention from the professional and academic fields (Ahmed et al., 2018). Recently, researchers are giving more attention towards examining the use of social media platforms for knowledge sharing (Ghazali et al., 2016).

Knowledge is easily shared with the utilisation of social media platforms. As such, Fenton, Mohamad, and Jones (2017) point out that social media platforms emphasise the technological infrastructure and may facilitate interaction among the users. This means that social media platforms can be mediated tools that allow people to create, share or exchange information and ideal in virtual communities and networks. (Kaplan & Haenlein, 2010).

The term, "social media platforms" in this study refers to the fast-evolving suite of applications and platforms, such as social networking platforms that are specifically hosted within an organisation's computing environment. Social networking platforms are often known as social media, such as blogs, public social networking sites, for example, Facebook, Twitter, and LinkedIn. The utilisation of social media such as wikis and social networking sites has expanded where this advancement are continually turning out to be more coordinated into people daily lives (Sulaiman, Ghazali, Alias, Omar & Zabidi, 2016)

The extraordinary advancement of this media form has revolutionised how people share their knowledge, and communicate and collaborate with each other while engaging in conversations in the workplace in a timely manner (Ahmed, 2018). At present, the implication of the use of social media platforms in organisations is an open and vibrant topic. Despite its importance and topicality, the research on social media platforms tends to focus on students' uses in educational contexts (Al-Rahmi, Othman & Yusuf, 2015; Anari et al., 2013; Bexheti, Ismaili & Cico, 2014). The use of social media platforms in an educational context is being emphasised in recent times in different parts of the world and this has brought about a significant increase in the number of educational institutions who are aware of their usefulness when either implementing them as a separate system or incorporating them into their learning management systems and management university as well. In addition, social media platforms are important to facilitate collaborative learning when group members are geographically separated. By using social media platforms staff in HEIs are able to work together without being in the same room at the same time (Hashim, Zamani, Othman & Azhar, 2015). Besides that, the coordinated nature of most of the social media platforms can assist staff to retrieve the conversations posted within the application and allow them in the university to go through the discussions at their own pace. Furthermore, through social media platforms, for example, staff, especially academic staff, can get first-hand opinions or reviews from experts that participate within their collaborative learning network and academic task. For instance, Asunka (2018) explains that

using YouTube academic staff are able to interact with an expert that shares their knowledge through a recorded video.

Past research by Corcoran and Duane (2016) indicates that knowledge sharing can be characterized as a methodology in which diverse units, groups and people can impart their experience to one another. Previously, face-to-face meetings and discussion in groups are among the most influential platform used to share knowledge. Nowadays, through social media platforms, people are easily connected to each other, thus enhancing the knowledge sharing process. Blogs, forums and social networking sites are examples on diverse applications of social media. Chow and Chan (2008) said that the implementation of social media made it possible to have an informal conversation where individuals get to explore unasked questions with people from different expertise contexts.

Furthermore, by means of social media platforms, individuals get to pursue an explanation of current issues, deriving motivation for future ventures and learning the impact of past tragedies (Corbeil & Corbeil, 2011). The utilisation of social media platforms may bring an impact to various sectors such as in the industry sector, health sector and including the educational sector. As an example, Hamid, Waycott, Kurnia, and Chang (2010) found that the presentation of social media into the working environment had critical outcomes for knowledge sharing establishment within organisations.

Despite this, there is a paucity of studies into the extent to which these tools are currently being used for knowledge sharing among academic staff. Thus, there is a need for more empirical studies to investigate organisational preparedness that would influence acceptance and increase the use of these technologies within HEIs.

2.4.1 Definition of social media platforms

Numerous overlapping definitions of social media are to be found in the literature but a useful one is that provided by Kaplan and Haenlein (2010, p. 61) who consider social media platforms as Internet-based applications based on the technological foundations of Web 2.0 that permits the creation or exchange of content which is created by the end-user. Other authors have defined social media as a wide range of software applications, which allow a large number of users to freely interact and share content with each-other (Leonardi, 2014). For other authors,

social media platforms are considered as tools for facilitating communication mechanisms and bringing people together through sharing content, which is known as user-generated communication (Anari et al., 2013). Social media platforms become an vital information channel from the perspective of work organisations, as tools for searching for and finding available information, which evolves through collaboration between workplace employees (Panahi, Watson & Partridge, 2012). Similarly, El Ouiridi, El Ouiridi, Segers, and Henderickx (2014) describe social media platforms as online tools that allow users to share content, collaborate, and build networks and communities, with the possibility of reaching and involving large audiences.

In summary, social media provide a broad range of applications such as Facebook, blogs, wikis, Flickr, YouTube and Twitter. These applications use distribution methods that bring together users in a digital setting. Applications typically support viewing of online videos, live chat, commenting on each other's content, reading and sending instant messages, creating, searching for and sharing information and knowledge and playing virtual games (Hajli & Lin, 2014; Rambe & Nel, 2015). Table 2.3 presents several views or definitions on social media platforms, as presented by scholars in the existing literature related to this study.

Table 2-3: Definitions of social media platforms from various literatures

Definitions	Authors
Social media platforms refer to the activities through which people share their knowledge, within a collaborative online environment	Papadopoulos, Stamati, and Nopparuch (2013, p. 2)
Social media platforms use for knowledge sharing and are comprised of interactive digital tools, allowing users to not only share knowledge, but also to create or influence content.	Ahmed (2018, p. 3)
Social media platforms described as web-based platforms that allow workers to: (1) communicate messages with specific staffs or broadcast messages to everyone in the organisation. (2) explicitly indicate or implicitly reveal staff as communication partners. (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited and sorted by anyone else in the organisation at any time of their choosing.	Leonardi et al. (2013)

<p>Social media platforms could be seen as facilitators for management and externalization of both personal and organizational knowledge. Externalization of knowledge can take place through multimodal interactions, through videos, pictures, blogs, wikis, answering questions or ongoing online conversations</p>	<p>Razmerita, Kirchner, and Nabeth (2014, p. 4)</p>
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2.4.2 Social media platforms in HEIs

With the rapid growth of acceptance and usage of social media platforms, a considerable number of studies have been carried out into their roles within the wider society; yet few studies have focused on their usage by academic staff in HEIs (Sulaiman, Ghazali, Alias, et al., 2016). However, efforts have been made to promote their greater usage for academic purposes by drawing attention to their potential benefits for scholarly research. Sulaiman (2010) has shown how Facebook, Twitter, Academia.edu, LinkedIn, Google Docs, SlideShare and Skype have all found their ways as assistive technologies within academia. In fact, a number of dedicated platforms have been designed for blogging within an academic context, such as <http://scienceblogs.com> and <http://scientificblogging.com> (Nentwich & König, 2014).

Birnholtz, Yuan, and Gay (2009) comment on the ease of access of platforms currently for building up groups online in a general sense whilst Dumbrell and Steele (2014) focus on the use of online platforms for networking among academics with shared research interests. These networks can enhance existing relationships and provide a forum for raising questions in a relaxed setting where ideas can be explored and further developed and new concepts generated (Gaál et al., 2015). For example, people directly engaging with each other on Facebook may hone in on an interesting academic question which can later be updated by others in the HEI setting (Nentwich & König, 2014). In this way, academics can be regularly updated on the latest developments in a given field of research.

O'Reilly (2005) comments on how businesses benefit from the global reach of the web, a point also supported by Eijkman (2008) drawing on Boyd (2005), O'Reilly (2005), Fredman (2006), Hinchcliffe (2006) and Anderson (2007). Social media represents the current state of the art developments in the realm of web-based social networking applications and services. This is because it has been designed by incorporating an architecture of participation and communal collaboration. Nevertheless, the current researcher favours the definition provided by McGee and Begg (2008), who view social media as:

A collection of web-based technologies -which it can share a user-focused approach to design and functionality, and users can actively participate in content and editing through open collaboration between members of communities of practice. (p. 2)

This definition is the one adopted for the purposes of the current research as it conveys the ease of engagement and collaboration, which can lead to the sharing of knowledge and the development of ideas.

Social media platforms represent a second wave in web developments by offering tools and applications such as weblogs, wikis, Ajax, Really Simple Syndication (RSS) and tagging. However, some authors prefer to view media platforms as a dimension of online social interaction (Miller, 2005; Birdsall, 2007; Abram, 2005) which also permits the creation and exchange of information (O'Reilly, 2005; Miller, 2005; Birdsall, 2007). Other researchers approach social media platforms from a technological perspective which can provide services such as wikis, blogs or weblogs really simple syndication (RSS), Ajax, instant messaging and podcasts (Linhl, 2008; Gross and Leslie, 2008). In the context of the current research, social media can be considered as authoring tools that are easy to use for people who do not have an information technology background but who can avail of its many facilities for sharing knowledge by means of creating weblogs, social networking and applications and services such as Facebook and Myspace.

In addition, Rowley (2000) draws attention to university websites which are mines of information and knowledge with lecturers notes and PowerPoint presentations as well as students' contributions. These are accessible through permission from the college library, but they often have a section accessible to the wider public also. However, knowledge which has accumulated on those sites have to be managed as valuable assets and Rowley (2000) remains dubious about those sites opening up freely to the general public. Nevertheless, Rowley (2000) does envisage a widening of access but more in the direction of explicit rather than tacit knowledge. In-house, however, such sharing may become more common, especially within departments but again, will probably not embrace tacit knowledge. The advantage of technological approaches lies in its facility for systematising and synchronising information shared by academics (Han & Anantatmula, 2007).

An important issue, however, centres on attitudes towards technology as a means of sharing knowledge. Jarvenpaa and Staples (2005) found that attitudes towards the use of technology

in knowledge sharing were generally negative among academics so it is of interest to see if such attitudes have changed over the intervening years. However, administrators of universities tended to be more positive in their attitudes viewing the creation of collaborative electronic networks and virtual communities as transforming colleges and universities into more democratic forums (Davison et al., 2013) Nevertheless, Noble (1998), writing earlier, was cautious about the advent of technology in HEI and feared that, if anything, it would lead to the deskilling and loss of autonomy and the reduction of programmes of learning to mere commodities.

In the following subsections, factors which were influential in promoting knowledge sharing through social media in HEIs are presented, especially where the authors have reached some consensus regarding their importance.

2.4.3 Facilitate Communication

Ability to facilitate communication was the most commonly cited reason that influenced the utilisation of social media among staff. (Sulaiman, Ghazali, Zabidi, Omar & Alias, 2015) Through social media, they can easily connect and communicate internationally with other scholars. As we know, the world of research requires massive communication for knowledge understanding. This scenario probably acts as a force for them to indulge in social media utilisation.

2.4.4 Generating ideas

Another successful factor of knowledge sharing is its potentiality for cultivating and generating ideas (Gaál et al., 2015). For example, in the Facebook group, the users are having a direct interaction among each other. Through this interaction, the possibility to spark an idea from a discussion of a certain topic is high.

Following this, it will help the HEIs and academic staff to have an up to date account of current research and issues (Leonardi et al., 2013). This can make sure that scholars are staying in the right track and keeping up with the newest research.

2.4.5 Promotion and Marketing

Moreover, social media platforms may also be required by the academic staff for promotion and marketing the HEIs. These tools provide an opportunity for institutions to share their

research work, professional opinion, collaboration with other industries and university current activities (Chi, 2011; Vaast & Kaganer, 2013). Twitter and Facebook, for example, can be used to highlight some statement and issues from the papers that they publicise. By doing so, people will get to recognise them and appreciate their works. Eventually, academic staff will have the chance to maintain and upgrade their professional image.

2.4.6 Group establishment

Currently, social media serve as the easiest platform for group establishment (Schiuma, Vuori & Okkonen, 2012) and (Sulaiman, Ghazali, Alias, et al., 2016). These authors state that social media possess the ability to form a network of scholars with similar interest and research area. It also helps HEIs to strengthen ties that have already established within them. Through this group, they can explore the unasked question in a less formal way (Dlamini, Ncube & Muchemwa, 2015; Moran, Seaman & Tinti-Kane, 2011).

Table 2-4 Social Media Description (Sources: Adapted from Gaál et al. (2015, p. 12)

Social Media Tool	Description
Facebook	Facebook, as an external social networking service, enables for a community to create a profile (and topic groups) with the aim to share information/knowledge to the followers (partners, potential customers) of their community page. Specific information should be shared only with the members; for a wider audience, commercials, news, etc. can be published.
LinkedIn	LinkedIn, as an external social networking service can be used for professional way, could be a perfect tool for finding information and experts.
Skype	Skype, as an external instant messaging service is also an online conference tool, which can promote instant communication and knowledge sharing between the community members. There can be numerous negotiations take place across national borders, and this tool means a more cost-effective solution
GoogleDocs	GoogleDocs, as external groupware supports the collaborative creation of knowledge. It can be used for sharing the documents without sending them via e-mails, but only sharing the link of the document. Other community members who have access to the GoogleDocs have a chance to modify the materials.
Weblog	Weblog, as a professional blog is an informational site published on the web and consists of posts typically displayed in reverse chronological order. Weblogs of the communities are focusing on partners, employees or everyone with the aim to share information or knowledge.

YouTube	YouTube as an external video-sharing site allows users to upload, view, and share videos, and it makes use of Adobe Flash Video to display a variety of individual or corporate media video.
SlideShare	SlideShare as an external presentation sharing is a web-based slide hosting service. Users can upload presentations privately or publicly. The website can be used for businesses to share slides among employees more easily. SlideShare also provides users the ability to rate, comment on, and share the uploaded content

2.5. Research into Knowledge Sharing by using social media in Malaysian HEIs.

The study conducted by Sulaiman, Ghazali, Zabidi, et al. (2016) *on knowledge sharing through social media* state that through the research, the authors had identified that there was still a paucity of studies on how this technological advancement influenced the scholarly world. Moreover, in Malaysia most research conducted into studying the effect of social media is focused on students rather than on academics. Their conclusion determined that social media platforms did assist HEIs and academic staff for their scholarly work especially in terms of communication between peers. They can share ideas, information and knowledge in an informal way that facilitates active interaction among them. Besides that, according to the study, most of previous research, centred on the importance of social media platforms to students in HEIs. There is clearly a need for research focused on academics and their use of social media for sharing knowledge.

The work of Hashim et al. (2015) takes into account there is a limited understanding on what are the drivers and elements that influence social media platforms adoption among academic staff in HEIs. Understanding the drivers and elements that influence social media adoption for knowledge sharing is important as it can help universities to capitalise on the full potential of social media in helping academic staff deliver and share their knowledge for better learning experiences and collaboration. Besides that, social media platforms are also capable of promoting dynamic teaching, research, and collaboration activities where this platform is important to support vibrant interactions between academic staff, students, and management staff. Furthermore, previous studies have acknowledged the importance of social media platforms for academic purposes; nevertheless, the understanding of its adoption level among lecturers at HEIs is extremely limited, especially in Malaysia.

The study by Al-Rahmi, Othman, and Yusuf (2015) is one of the few to focus on knowledge sharing and social media platforms towards student academic performance. Their quantitative investigation addresses collaborative learning and engagement via intention towards social media use that has been tackled by some researches in terms of its impacts on students' academic performance. Similarly Usman and Oyefolahan (2014), use a quantitative approach to research, which provides limited exploration on knowledge sharing in social media platforms and their respondents were among the HEIs students.

Jain et al. (2007) focused on knowledge sharing activities among academicians in Business Schools in the one of private university in Malaysia. This research especially focused on barriers that exist in knowledge sharing in an academic environment. Other studies such as Sohail and Daud (2009) examined the elements and barriers that contribute to successful knowledge sharing among academicians from economics and business management departments from both public and private universities and colleges in Malaysia. The factors considered include the nature of knowledge, working culture, staff attitudes, motivation to share and opportunities to share.

Nonetheless, Muda and Yusof (2015b) show which elements influence knowledge sharing among the academic staff on social media platforms, and this has significantly influenced the practice of knowledge sharing. However, this study was not entirely focused on knowledge sharing using social media platform but on the performance of teaching and teaching innovation. They stress that the establishment of social media platforms and the performance of teaching and teaching innovation are significantly related.

The study of Razi, Habibullah and Hussin (2019) the academicians in the HEIs selected for the study believed that a trust culture existed among the peers and a decentralized decision-making structure prevailed in the university. Their quantitative investigation on the influences of the element management believed that the top management could be the supports and is committed to knowledge sharing and social media platforms initiatives and provided to the IT support. Also, they believed involvement in knowledge sharing was easy and useful in their career. Besides, it can be concluded that many academicians perceived that existence of trust among colleagues, the high-performance expectancy of knowledge sharing and less effort expectancy

of knowledge sharing would more likely influence their involvement in knowledge sharing. However, the present study provides both theoretical and practical contributions to understanding the analysts of knowledge sharing by using social media platforms in Malaysian HEIs context that should be of interest to both academic researchers and academic administrators still paucity.

Studies that have investigated social media platforms-based knowledge sharing have done so within the overall context of the institution. However, the studies which focus on academic staff are still limited. For instance, Al-rahmi, Othman, Yusof, and Musa (2015) conducted research among students in Malaysian HEIs. They found a that social media platforms had a significant effect on knowledge sharing among the students' academic performance with collaborative learning. Without good collaborative learning, an education institution cannot take advantage of social media platforms for improving knowledge sharing for academic performance.

Therefore, a literature review has indicated that there is a lack of literature on social media platforms based knowledge sharing among academic staff, specifically in Malaysian HEIs. The lack of consideration of the influences of organisational elements for social media platforms and knowledge sharing as a contribution to successful knowledge sharing is acknowledged in the literature (Ghazali et al., 2016). The importance of studies on social media platforms based knowledge sharing among academic staff draws attention to the need to explore this in a more comprehensive manner.

2.6 Contextualization of the Research

2.6.1 Introduction

Since this thesis focuses on the higher education sector in Malaysia and explores the concept of knowledge sharing on social media as a method of sharing knowledge by academics in a system which will be expected to keep evolving and keep abreast with, if not ahead of, global trends which affect education policy and practice. This section provides a brief background of Malaysia, and the political and economic environment within which the HEIs is embedded in order to contextualize the research agenda, and to provide the necessary background for understanding the rationale for the research, the underlying issues that will support academics

to become knowledgeable staff and the way the HEI systems will operate to respond to the advancement in ICT which dictates that academics become more flexible in sharing of knowledge.

The use of social media platforms has become part of everyday activities within Malaysian HEIs. These platforms are used to turn communication into interactive discussions among like-minded people (Ahmed et al., 2018) Individuals and researchers within Malaysian HEIs can formulate various groups, discuss and share knowledge by using the platforms. Hence, through the utilisation of social media platforms, HEIs can easily facilitate flow, transfer, communication and sharing of knowledge. In Malaysian HEIs, social media platforms have offered academic staff lots of opportunities. Academic staff could be better relate well online without visible contact. Academic staff could conduct online anywhere and at any time at the convenience. It is therefore vital for HEIs to leverage social media platforms to enhance and improve the quality of their facilities. It has been argued that social media use, as learning tools is promising because youths' participation with social media fosters learning that reinforces and complements what is taught in traditional classrooms. However, while social media platforms appears to present a new world of opportunities in education, it also presents a new wave of potential problems in both the short and long-term future. The problem remains that, both in the developed world and in a developing country like Malaysia, the full benefits of social media platforms in the education arena is still uncertain and this requires further research for better understanding and effective implementation. If social media platforms are used by a large percentage of the population to increase networks and gather information, and is finding its way into the professional world, and knowledge sharing is one of the major advantages of the use of social media platforms, then it is most likely that the use of social media will be positively related to knowledge sharing.

The Malaysian government is putting a lot of emphasis on educating a new breed of citizens who are well prepared to play an effective role in the knowledge society because of the realisation that scholars are the most crucial segment of a society and the main driving force for future growth and development.

2.6.2 A Brief Background of Malaysia

Malaysia is a country in Southeast Asia situated in the South China Sea. Malaysia consists of thirteen states and three federal territories separated by the South China Sea into two regions, Peninsular Malaysia and Borneo's East Malaysia, As is illustrated in Figure 2.3 geographically Peninsular Malaysia shares a land and maritime border with nearby Thailand and maritime borders with Singapore, Vietnam, and Indonesia. Also illustrated in Figure 2.3. Geographically East Malaysia shares land and maritime borders with Brunei and Indonesia and a maritime border with the Philippines and Vietnam. Kuala Lumpur is the largest city and capital whilst the federal government is situated in Putrajaya. Malaysia has a population of over 32 million and is the world's 43rd densely inhabited country.



Figure 2.3 Map of the Geographical Location of Malaysia. (Sources: <https://www.britannica.com/place/Malaysia>)

Since gaining its independence in 1957, Malaysia has diversified its economy from agriculture and commodity-based to solid manufacturing and service sectors. It has a labour force of 15.7 million people out of a 32.8 million population. Malaysia has become the 4th largest economy of South East Asia and it continues to perform strongly, due to a strong global demand for

electronics, increased demand for commodities, such as oil and gas, an improving labour market, a pro-cyclical budget and ample infrastructure spending.

During the past few years, a political crisis, low oil and commodity export prices and the slowdown in China have deeply affected Malaysia's economy, putting pressure on the country's finances. The 2019 budget continued the government's transformation plans to create new opportunities for wealth generation by ensuring the country is prepared for the digital economy (Lee, 2005). It has been predicted that by 2020, Malaysia will have "...evolved from a production-based to knowledge-based economy in order to stay relevant and compete in the global marketplace" (Grapragasem, Krishnan & Mansor, 2014). In particular, the idea of a knowledge society (Evers, 2001) requires HEIs and academics to be creative and innovative in actively engaging in building that knowledge society through knowledge sharing.

2.6.3 Brief Background of the National Strategy for Higher Education Institutions (HEIs) in Malaysia

Malaysia boasts one of south-east Asia's most vibrant economies, the fruit of decades of industrial growth, political stability and educational growth. Malaysia's unique, well-structured higher education system offers citizens the opportunity to pursue study as such, Malaysia hosts more than 100 HEIs in both public and private sectors, including foreign branches of reputable universities from the United States, United Kingdom, Australia and Ireland. The government, under the jurisdiction of the Ministry of Education (MOE), is entrusted with providing quality education for the people of Malaysia. Education in Malaysia begins from pre-school and continues to university. The vision of the MOE is to make Malaysia a centre for education excellence. An MOE source has stated that more than 95% of primary and secondary education and 60% of the tertiary education is funded by the government (Ministry of Higher Education, 2009).

The HEIs are the responsibility of the Ministry of Higher Education (MOHE). The education sector has always enjoyed the highest national development budget, which symbolises the commitment of the Malaysian government towards providing a great education for their societies. Higher Education in Malaysia is overseen by the MOHE. Although education is the responsibility of the Federal Government, each state and federal territory has an MOHE to coordinate educational matters in its territory.

One of the current Malaysian government's key focus for higher education is their aspiration to transform the higher education system. This aspiration comprise two aspects: those for the education system as a whole, focusing on access, quality, equity, unity, and efficiency; and those for individual students, covering the six primary attributes - ethics and spirituality, leadership skills, national identity, language proficiency, thinking skills and knowledge.

2.8.4 Background to the Higher Education Sector in Malaysia

HEIs are well organised in Malaysia. There are many HEIs in the country. Some of the potential International students prefer to complete their higher education from leading institutions in Malaysia which offer a wide range of professional as well as academic courses. Public institutions of higher education, as well as private universities, are offering excellent educational courses and programmes in Malaysia. The growth rate of research output and quality has been one of the highest in the world, and Malaysian institutions are ranked highly amongst our Asian peers. Malaysia is also now a top ten destination for international students (Malaysia, 2015)

Teaching and learning is one of the strategies included in the Malaysian National Higher Education Strategic Plan (NHEAP) 2007–2010, to ensure a stable and strong institution, dynamic and relevant curricula and pedagogy are needed. A well-designed higher education curriculum should include creativity, innovation, leadership, and entrepreneurship. One of the initiatives adopted by Malaysian HEIs is "...education as a humanitarian response". A simple and logical definition of humanitarian is helping to improve and save human lives or to alleviate human suffering. According to Brock (2012), education as a humanitarian response is conventionally seen in terms of "education for emergencies" and "education for special needs". Providing educational support to those suffering from natural or manmade disaster becomes the responsibility of every human being.

Nonetheless, the MOHE recognises that the system will need to keep evolving to stay abreast with, if not ahead of, global trends. For example, disruptive technologies such as advanced robotics, the Internet of Things such as social media platforms, and the automation of knowledge work are expected to dramatically reshape the business and social landscape from what it is today. Furthermore, MOHE support academic staff in HEIs to propose major changes in the way of education system will operate in order to realise this goal to become knowledgeable staff and strive the goal support specialisations in teaching, research,

institutional leadership, and allow practitioners and professionals more flexibility in participating in higher education and sharing of expertise.

Grapragasem, Krishnan, and Mansor (2014) mentioned that effective teaching and learning needs an effective delivery system. Textbooks are no longer considered as an important element of knowledge acquisition. Learning activities are done through electronic media, whereby ICT has become the main means of imparting knowledge and gathering information in HEIs. ICT has actually changed students' learning behaviour, helping to move from content-centred curricula to competency-based curricula, and from teacher-centred to student-centred forms of delivery (Oliver, 2002). The advancement in ICT has also changed the delivery style of teaching and learning. The conventional method of imparting knowledge through face-to-face interaction is slowly taking a step backward, even though it is still used in public and private colleges and universities in Malaysia. Virtual classrooms, e-learning and blended learning are slowly gaining momentum.

2.7 The Research Gap and the Justification of the Study

Research into knowledge sharing in the HEI sector is limited, despite the extensive research carried out in the commercial sector and other public sectors. However, some research has been conducted in several universities in Malaysian HEIs in recent years, as discussed in the previous section; moreover, studies have been performed to determine successful knowledge sharing in general. However, limited attention has been paid to assessing successful strategies and identifying organisational elements of knowledge sharing through social media platforms.

The investigation of knowledge sharing, social media platforms and organisational elements has previously been carried out with the use of a comprehensive approach. For instance, the work of Ghazali et al. (2016) takes into account knowledge sharing and social media platforms among academic staff, as they identify and discuss the importance of using social media platforms on knowledge sharing. Besides that, they conclude that social media platforms indeed bring an impact towards academic staff and the scholar's profession. In addition, they claim that most policies on Information and Communication Technology (ICT) in Malaysian education are made within the scope of students' performance but not among academic staff. The study states there are no specific policies or rules that targeted Malaysian academic staff to utilise social media platforms for knowledge sharing purposes. Moreover, among the most recent research that studied the effects of social media platforms utilisation in the educational

sector was the research done by Sharma, Joshi, and Sharma (2016). Their research was aimed at exploring the influential organisational elements that initiate students' attention towards engaging with social media platforms for academic use. Sharing resources, perceived enjoyment, perceived usefulness and social influence are found to be the main key elements in affecting social media platforms. They stress the need for further understanding of each element related to the usage of social media platforms on knowledge sharing. Al-Rahmi, Othman, and Yusuf (2015) further highlight those social media platforms is very effective in increasing the learning collaboration among introvert researchers. They found that these researchers are more willing to interact via social media than face to face. Consequently, by doing so, the researchers get to improve their performance in communication and group collaboration. This research was specifically designed to study the social media platforms contribution on Malaysian researchers. Besides that, they find that it provides understanding of the best way for knowledge sharing. Despite the quantitative nature of the study it does not allow for a deeper exploration and understanding of each element.

Therefore, this study sought to present a comprehensive investigation of social media platforms based knowledge sharing by academics where in this case further identification influencing organisational elements of knowledge sharing. The key characteristics of organisational elements in the literature review are presented in the Table 2.6 below.

Table 2-5: Key characteristics of organisational elements

Organisational Elements		Key References
Organisational Structure	Managerial	Fullwood et al. (2018) Boyatzis, 1998 ; Islam et al. (2011); Basu and Sengupta (2007); Ramayah et al. (2013)
	Administrative	Udagedara and Allman (2017); Syed-Ikhsan and Rowland (2004)
	Supervision	Randle and Brady (1997) ; Ipe (2003); Sohail and Daud (2009)
Technology Infrastructure	Networking	Al-Kurdi et al. (2018) ; Hislop (2013);
	Information technology	Skyrme (1997) ; Ghazali et al. (2016);
	Social Media Platforms	Wahlroos, 2010(Ipe, 2003)
Organisational Strategy	Goals and strategies	Riege (2005); Zheng et al. (2010) ; Daft (1995); O'Dell et al., 1999;

		Liebowitz, 1999; Soliman and Spooner, 2000 ; Ipe (2003)
Organisational Culture	Motivation Trust Cooperation	Baker (2002); Sohail and Daud (2009) (Ipe, 2003) Cohen and Prusak (2001) ; Ramayah, Yeap, and Ignatius (2013) ; Al-Kurdi et al. (2018) Cabrera and Cabrera (2002)
Management Support	Leadership and management Rewards Promotion	Corcoran and Duane (2016); Thompson, (2008); Politis (2001) Fullwood et al. (2018); Rowley (1996); Wang and Noe (2010); Kathiravelu and Abu (2015); Islam et al. (2011) Ali and Dominic (2016)
People	Communication	Ali et al. (2014); Muda and Yusof (2015a); Zawawi et al. (2011)
Skills	Training	Syed-Ikhsan and Rowland (2004); Ramayah et al. (2014); Jahani, Ramayah, and Effendi (2011)

2.9 Theoretical Framework

This study concerns knowledge sharing on social media platforms as a method for sharing knowledge in which one's attitude involves intention, and intention subsequently influenced by organisational elements. To establish which elements could influence academic staff in knowledge sharing, their feelings, intentions, and performances, the research adopted the Organisational Elements Model. Studies that investigate organisational structure have commonly applied the theoretical framework of Organisational Elements. Most often the framework comprises seven elements: structure, strategy, systems, skills, style, staffs, and culture (Ipe, 2003; Razmerita et al., 2014; Riege, 2005; Sohail & Daud, 2009; Syed-Ikhsan & Rowland, 2004; Yassin et al., 2013).

Ipe (2003) presented the framework that brings together the whole idea to provide a more comprehensive approach to understanding the phenomenon of knowledge sharing within organisations. Nevertheless, there is a scarcity of research specifically in knowledge sharing between individuals in organisations, and empirical evidence has just begun to uncover some of the complex dynamics that exist in processes related to knowledge sharing. Furthermore, Ipe (2003) established the factors that interact with the primary factors that influence knowledge sharing in organizational settings. This is evidenced in the framework by Sohail

and Daud (2009) and (Liebowitz & Yan, 2004), where several other organisational elements such as organisation structure, organisational culture and reward systems are among the influential elements that maximise their knowledge sharing in organisations. This is also evident in the framework presented by Paroutis and Al Saleh (2009) that illustrates the research on the human and organisational factors or the social features of knowledge sharing.

Furthermore, Kim and Lee (2006) discussed, organisational culture, structure and technology as continually interrelated with each other. These three elements are related to effective knowledge sharing and clear organisational vision and goal. As organisations increasingly focus on efforts to improve the knowledge-sharing abilities of employees in the organisation, they require organisational leaders to connect with selected elements to secure a commitment to promoting informal and formal networks and knowledge sharing practices. The emergent technology represents one of the new elements which are the nature of knowledge for example individual and organisational knowledge and its impact on employee knowledge-sharing capabilities; motivational factors such as internal and external and their impact on employee knowledge-sharing capabilities; relationships with recipients and their impact on employee knowledge sharing experiences and knowledge sharing and its impact on organisational performance possibly not clearly defined or verbalised, but which are seen as necessary for future success.

Nonetheless, there is no suggestion that the combination of social media platforms based knowledge sharing is the most representative. In fact, accordingly to Ahmed (2018) the increasing relevance of social media platform as a method for knowledge sharing and the fast progress of ICT have influenced organisations and their environments in knowledge sharing. Consequently, other combinations are likely to provide a more up to date illustrative framework of organisational elements, particularly about knowledge management, however studies in social media platforms area still fairly new. Based on these arguments the study aims to contribute to the discussion of the organisational elements framework with the first application of a theoretical framework that encompasses social media platform based knowledge sharing. By adopting the Organisational Elements Framework at the Figure 2.4, this can assist the researcher in investigating the influential elements that change the acceptance of social media platform based knowledge sharing.

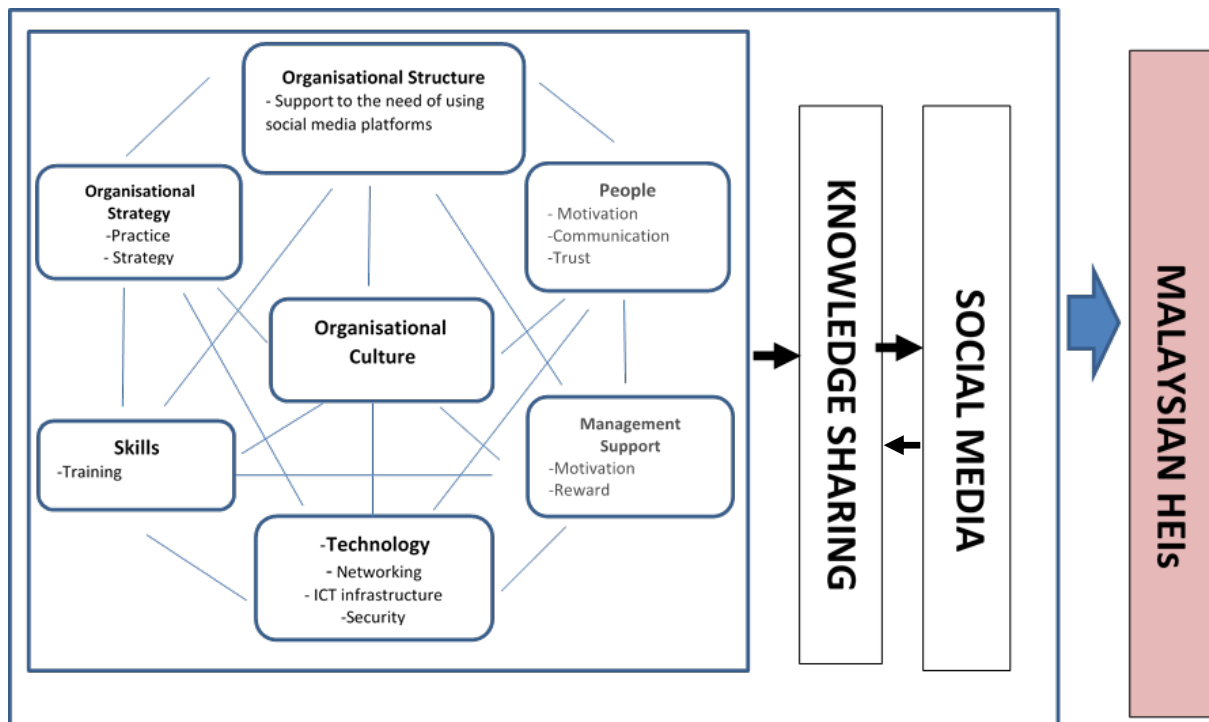


Figure 2-4 Organisational Elements Framework (Source: Author)

2.8 Summary and Link

This chapter reviewed and discussed the available literature on the topic of knowledge sharing, organisational elements and the social media platforms process. Overall, the literature review identified the theoretical and empirical requirements for the study and established that using social media platforms for knowledge sharing in HEIs could bring benefits within the institutions including HEIs. Besides that, the organisational elements play the main part in encouraging use of social media platforms and knowledge sharing in encouraging the right culture to ensure enthusiasm, dedication and commitment towards knowledge sharing by academics. The use of right culture to ensure passion, dedication and commitment towards knowledge sharing by academics. To understand these complexities will require a critical research investigation. As such the next chapter presents the research methodology including the philosophical position and the research strategy and design applied in this study.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

Chapter 3 explains the design of this research. The review of the relevant literature in the previous chapter has assisted in articulating the research questions on the basis of certain identified research gaps that required further exploration and investigation. This chapter, which is concerned with the research design and its implementation, is outlined in Figure 3.1 illustrating The Conceptual Diagram of the Research methodology flows in the research below as a road map.

The aim of this research is to investigate the influence of organisational elements and how these can contribute to social media platform based knowledge sharing among academic staff within the context of Malaysian HEIs. To meet the central aim of this research and to answer the key research questions about the influential elements of social media platform based knowledge sharing, the specific objectives are stated:

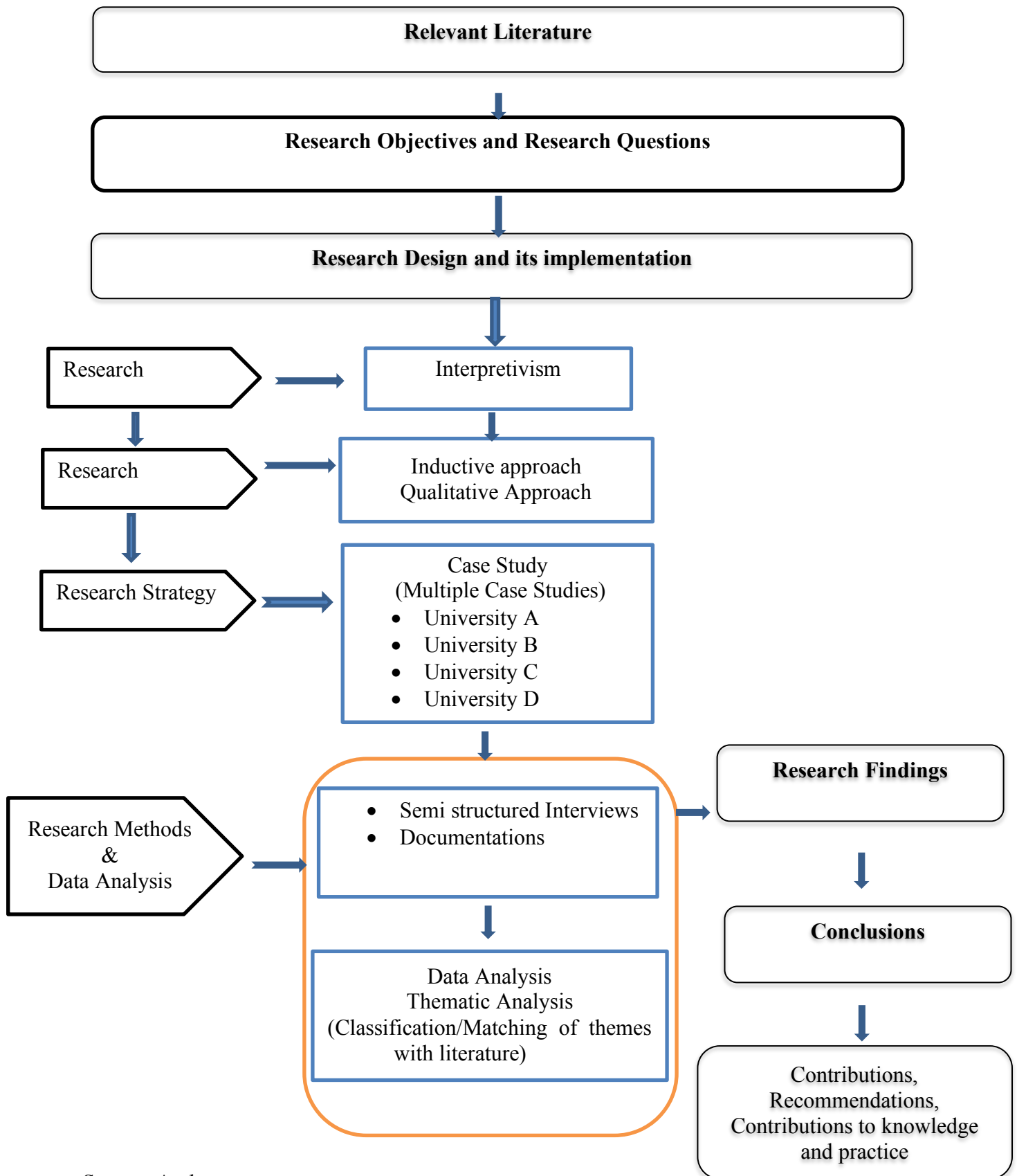
- To investigate ways in which knowledge is shared among academic staff within the Malaysian HEIs.
- To examine the types of knowledge shared in social media platforms among academic staff within the Malaysian HEIs.
- To explore the influence of organisational elements that contribute to social media platforms based on knowledge sharing.
- To provide recommendations for managing organisational elements to improve the social media platforms based knowledge sharing.

To achieve the aims and objectives of this research, adopting an appropriate research strategy was important. This chapter considers a number of methodological issues and offers a justification for the research methods that were utilised. Firstly, the chapter begins with an analysis of the key research paradigms and the application and justification for the use of interpretivism as the appropriate paradigm for the research. Secondly, the research approach of the study is presented with reasons for its adoption. Both deductive and inductive approaches have been applied as the study engaged with knowledge from the literature. Then, this is followed by a discussion of the research strategy employed for the study, which is the case study strategy using multiple cases. Next, the different methods used in collecting data relevant

for answering research questions are discussed. The semi-structured interview has been used as the main method but complemented by other primary research methods such as documentation. Apart from that, the use of directed thematic analysis to analyse the data is discussed drawing on its strengths in the context of this study, which has led to establishing the trustworthiness of the findings of this study. This chapter concludes with a consideration of the ethical issues involved in this research as well as a resume of the personal experience of the researcher during the fieldwork.

This chapter, which is concerned with the research design and its implementation, is outlined in Figure 3.1 below as a road map.

Figure 3-1: The Conceptual Diagram on Research methodology flows in the research



Source: Author

3.2 Research Philosophy

Research philosophy reflects the researcher's thinking and basic assumptions about what constitutes valid and reliable knowledge which, in turn, affects the way the research is conducted (Saunders, Lewis & Thornhill, 2009). It consists of important assumptions that underpin the research strategy and methods chosen as part of that strategy. Within the domain of research philosophy, the researcher has considered ontology, epistemology, and axiology. Thus, research philosophy relates not only to the acquisition of knowledge but to the very nature of the knowledge itself (Collis & Hussey, 2013) which is, in essence, the way that people view the world.

According to Denscombe (2014), research is validly conducted when the direction and topic is a direct outcome at the cutting edge of knowledge and is either theoretically driven or based on practical problems that could contribute to the advancement of the particular discipline within which it is being conducted.

Furthermore, according to Guba and Lincoln (1994), research philosophy embraces a paradigm as a 'basic set of beliefs that guide action'. A research paradigm is thus seen to incorporate the beliefs that guide the research process. Furthermore, a paradigm guides the research efforts and directions of scientific communities, providing a framework within which facts and ideas can be organised and evaluated (Morgan, 2007). Additionally, Guba and Lincoln (1994) stated that the fundamental beliefs of inquiry paradigms could be summarised by the responses given to the three indivisibly linked questions; the ontological, epistemological and methodological questions. These questions are presented in Table 3.1.

Table3-1: Fundamentals questions for determining inquiry paradigms (Source: Guba & Lincoln, 1994, p. 108)(Guba & Lincoln, 1994, p. 108)

The Ontological Question	The Epistemological Question	The Methodological Question
<ul style="list-style-type: none"> • What is the form and nature of reality and, therefore, what is there that can be known about it? For example, if a "real" world is assumed, then what can be known about it is "how things really are" and "how things really work". 	<ul style="list-style-type: none"> • What is the nature of the relationship between the knower and what can be known? The answer that can be given to this question is constrained by the answer already given to the ontological question; that is, not just any relationship can now be postulated. 	<ul style="list-style-type: none"> • how can enquirer (would-be-knower) go about finding out whatever he or she believes can be known? Again, the answer that can be given to this question is constrained by answers already given; that is, not just any methodology is appropriate. For example, a 'real' reality pursued by an 'objective' inquirer mandates control of possible confounding factors, whether the methods are qualitative or quantitative.

Ontology refers to the nature of reality, while epistemology can be defined as the nature of knowledge and methodology is the process by which the researcher searches for and acquires knowledge.

The ontology must be considered together with epistemology as both are interdependent, and it is frequently difficult to conceptually distinguish between them when discussing issues related to research (Crotty 1998). Crotty (1998) further discusses the construction of meaning (epistemology) and the construction of a meaningful reality (ontology) as one form of knowledge based on a constructivist ontology and epistemology. Therefore, epistemology involves knowledge and embodies an understanding of what it means to know; that is, 'how we know what we know' (Crotty, 1998, p. 8). Also, Easterby-Smith, Thorpe, and Jackson (2015, p. 60) define epistemology as a 'general set of assumptions about the best ways of inquiring into the nature of the world.'

According to Saunders, Lewis, and Thornhill (2012). a well thought out and consistent set of assumptions results in a credible research philosophy which will also determine the methodological choice, research strategy, data collection methods and analysis to be used during research. It is the researcher's assumptions about the world that determine what

approach and strategy to use. Mostly, researchers in business and management need to be conscious of the philosophical commitments that are considered throughout the choice of the research strategy because it has an impact on how research is understood and undertaken. Furthermore, Saunders et al. (2012) also agree that the philosophy of research is an important foundational phase of any research process.

Research in business and management is founded on either of two philosophical paradigms: positivism or interpretivism. Travers (2001) has summarised the two philosophies as set out in Table 3.2. These philosophical positions are discussed in the following sections.

Table 3-2 Summary of Research Philosophies (Source: Travers, 2001, p. 11)

Positivism	Interpretivism
Use of quantitative methods in researching large-scale phenomena	Employ qualitative methods to address the character of human group life.
The objective of a positivist study is to make comparisons and develop some causal theory, based on measuring variables in different particular settings.	Interpretivist might want to know how people in a particular setting make comparisons between “insiders” and “outsiders” in the course of their daily affairs.
A positivist would spend a lot of time devising sampling procedure for the purpose of collecting large amounts of data	An interpretive perspective, might want to know how members of society understand the issues; there are no benefits in working with large data sets

3.2.1 Positivism

Positivism searches for causal explanations and fundamental laws. The belief that the natural sciences and the social sciences share common logical and methodological principles lies at the heart of positivism (Hughes & Sharrock, 1997). Positivists seek to measure reality through objective, repeatable methods. They tend to first formulate a hypothesis and then to craft a research design that focuses on measuring phenomena through objective, arm’s length methods which engage the researcher as an independent observer. Positivist methods tend to be quantitative (Neuman, 2002) and are primarily orientated towards manipulating and predicting the social world rather than understanding it (Delanty & Strydom, 2003). Positivist studies aim to uncover causal relationships between the objects of interest, so that knowledge can be applied to control or regulate the behaviour of the objects within society (Benton & Craib, 2001).

According to Collis and Hussey (2009), positivists come from a background of the natural sciences and are therefore, committed to scientific or systematic methods. Positivists believe that reality is independent of the human mind and is therefore objective. The goal of research for them is the observation of phenomena and the discovery of explanatory theories which are based on empirical research (Sekaran, 2013). Schensul (2012) further added that the researcher should observe independently and avoid any interaction with the subject which might affect the subject matter when collecting data. Cavana, Delahaye, and Sekaran (2001) recommended that this research paradigm would generally use quantitative data (collected, for example, by means of surveys or experiments) as the data source.

3.2.2 Interpretivism

In contrast, interpretivism is based on the belief that social reality is not objective in the sense of being mind-independent but rather that it is highly subjective. Interpretivists argue that their own perceptions are what shape reality. In this paradigm, the researcher, in contrast to the independent stance adopted by the positivist researcher, interacts with and gains an in-depth understanding of the subject matter being investigated (Collis & Hussey, 2009; Guba & Lincoln, 1994). Moreover, from an interpretive perspective, it is posited that the objective of sociological analysis should be addressed in terms of how members of society understand their own actions (Travers, 2001)

Interpretive researchers believe that reality consists of people's subjective experiences of the outside world; thus, it may adopt an inter-subjective epistemology and the ontological belief that reality is principally socially constructed (Willis, 1995). The main focus of the interpretivists' argument is that reality is not primarily objective but rather is influenced and shaped by the researcher's experiences (Hoepfl, 1997). These experiences are gained through, among other things, interacting with the research subjects (Eriksson & Kovalainen, 2008) .

While positivist research traces its origins to the natural sciences and draws on its methods of inquiry, the interpretive paradigm, on the other hand, originates in the social sciences. The interpretivism paradigm is based on the premise that the method of the natural sciences is inadequate for capturing human behaviour and motivation. Whilst the scope of positivism is limited to objective facts or observations; interpretivism consider the meaning that phenomena hold for people, for example, some people may see a half-filled glass of as half full whilst others may see it as half empty (Leitch, Hill, & Harrison, 2009). Thus, Leitch, Hill, & Harrison

(2009) emphasise the importance of the overall social context in assessing the data collected from experience or observation. Furthermore, interpretive approaches are not limited to the discovery of associations between independent and dependent variables (Kaplan & Maxwell, 1994) but embraces reality in all its complexity and attempts to make sense of it (Kaplan & Duchon, 1988). Often, the human intentionality of the participants is explored for more nuanced understandings of the phenomenon under investigation (Howe & Eisenhart, 1990) resonating with the earlier work of Burrell and Morgan (1979) who also emphasised the importance of intentionality for understanding patterns of human behaviour. Most important for interpretive studies is the understanding of a phenomenon within its context and the involvement of the participants as well as that of the researcher (Orlikowski & Baroudi, 1991). Interpretive research, although it may be informed by pre-existent theoretical explanations is, nevertheless not driven by theory but rather expects a theory to emerge from the analysis of the data. Central to such an analysis is the intimate interaction of the researcher with participants who are not passive subjects but are often regarded 'co-researchers' (Moustakas, 1994) rather than mere units of data for numerical analysis.

Interpretive research considers diverse perspectives narrated by participants to arrive at socially constructed meaning; reflexivity research; naturalistic research, analysis of qualitative narratives and varying perspectives (Maxwell, 1996) in order to capture the richness of the everyday life experiences of people and the meanings that they assign to such experiences.

The goal of all research is to grasp the truth of a phenomenon, but interpretive studies are predicated on the subjective understandings people have of their experiences. This implies that there may be differing perceptions of reality opening the door to a relativism regarding truth. However, in the analysis of qualitative data, intersubjectivity may protect against relativism, but this does not imply that divergent interpretations can be ignored. Rather, divergent views can add nuance to the overall picture which emerges from the analysis of the qualitative data. Additionally, studies of people need to take account of their natural settings so that the maximum levels of real-life complexity can be accessed. This type of research involves qualitative data analysis, where capturing the language used by the people is important. In addition, it can also incorporate expressions and non-verbal cues which could be missed in quantitative studies. It is about describing a person or object in a literal and simple way; 'naively' in the words of Moustakas (1994).

3.2.3 Justification of the choice of the research paradigm

This section discusses the issue of research paradigms and the resulting differences in their characteristics. According to Maxwell (1996), the principal difference between a natural and social world perspective is that the social world is meaningful. This meaningfulness incorporates some understanding of subjective experiences, which include the thinking, feelings and actions of participants within their natural setting. Thus, for interpretivism, reality is complex and this complexity needs to be explored in order to arrive at valid conclusions (Gioia & Pitre, 1990).

Whilst the role of the researcher, working within an interpretivism paradigm, is to understand and interpret the phenomenon under investigation, Walker and Dewar (2000) issue a note of caution regarding researcher bias which can adversely impact on the objectivity, validity and reliability of the researcher's interpretations. Thus, although the researcher is intimately involved with participants, care must be exercised to avoid bias or presuppositions (Wahyuni, 2012) and phenomenological investigators such as Moustakas (1994) recommend the 'epoche' method whereby the researcher makes a conscious effort to bracket out prior presuppositions in order to capture the essence of the phenomenon without pre-judgement.

The first step in the research process is to formulate the questions for which answers are being sought through the process of discovery (Stake, 2000). Within an interpretivist paradigm, these questions need to be broad and open and to be framed in such a way as to avoid presuppositions. In finding answers to the research questions, the investigator follows the interpretive paradigms by constructing and interpreting the various perspectives of the participants from the collected data.

At the beginning of the current research, the researcher's worldview tended towards the belief that it was possible to find a single solution to any problem and likely associated this with the positivist paradigm. However, in the early stages of this research and guided by the literature on philosophical paradigms, this view shifted towards exploring and identifying that the current situation by embracing the subjective views of the participants in the belief that this approach offered the optimum opportunity to get to the heart of the matter under investigation.

The researcher's view is that the phenomenon of knowledge sharing has numerous and diverse meanings. For example, an organisation's ability to effectively utilise its knowledge is highly dependent on its people, who create, share, and use that knowledge. The utilisation of the

knowledge that resides within an organisation only becomes possible when people can share their own knowledge and build on and contribute to the knowledge of others. Knowledge sharing is the act of making knowledge available to others within the organisation. To that purpose, social media platforms currently offer a means of sharing and have increasingly attracted global attention by becoming a valuable approach and forum for facilitating knowledge sharing. Thus, the researcher set out to conduct a deep exploration of this phenomenon by acquiring the views of academic staff on their experiences of sharing their knowledge by using social media platforms.

Thus, the researcher was committed to an interpretivism paradigm by interpreting participants' views of social media platforms for knowledge sharing. This involved understanding socially constructed perceptions of knowledge sharing within the context of Malaysian HEIs. Of pivotal importance was the necessity of discovering why academic staff made the choices they made for the purposes of knowledge sharing. In view of the issue of researcher bias commented on in earlier paragraphs, the researcher avoided making predictions or expectations of certain outcomes from the data analysis.

Furthermore, this research which was social in nature, took into account the views, beliefs, realities, attitudes and experiences in the particular environment of the HEIs. The data and information which was being sought was guided by the literature review and the interviews which were subjective in nature and the researcher's interpretations were essential to the contribution of this research.

The research focused on social media platforms based knowledge sharing and required the researcher to seek in-depth insights through investigation and analysis by eliciting answers to 'what,' 'why' and 'how' questions concerning the phenomenon being investigated. This entailed listening attentively and without presupposition to stories within their contexts (Jacob & Furgerson, 2012)

In summary, the epistemological viewpoint was influenced by the interpretivist stance which was considered most appropriate for this work. Table 3.3 indicates the alignment between the researcher's philosophical beliefs about the research and the interpretive paradigm.

Table 3-3: Paradigm Comparison Table adapted from Wahyuni (2012)

Research Paradigm			
Fundamental beliefs	Positivism	Interpretivism	<i>This research</i>
<i>Ontology:</i> the position on the nature reality	External objective and independent of social actors	Socially constructed, subjective, changeable, multiple reality	<i>-Researcher believes in subjective, multiple realities and people's knowledge, experience, common sense, views, interpretations and human interaction.</i>
<i>Epistemology:</i> the view on what constitutes acceptable knowledge	Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalisations, reducing phenomena to simplest elements	Subjective meanings and social phenomena. Focus upon the details of situation, behind these details subjectivemeanings and motivating actions.	<i>-Human interaction is essential to understand the social reality and explore for in-depth understanding -More personal, interactive approach with participants during the data collection.</i>
<i>Research Methodology:</i> the model behind the research process	Quantitative Quantitative methods of data analysis and collection which allow for generalization	Qualitative Ethnographic work, case studies, and participation observation encouraged.	<i>-Subscribes to interpretivist beliefs in real life case studies. -This research is a result of the value to the researcher.</i>

3.3 Research Approach

Several areas to be considered in deciding on a research method have been suggested in the literature, which includes the context of the study or phenomenon, the research goals, the level and nature of research questions, practical reflection and resources availability.

In addition to choosing the philosophical research paradigm for the research, another important consideration when undertaking research is to identify an appropriate research approach.

The primary aim for one's selection of a research approach is to adopt the most appropriate one for understanding the subject matter under study. This approach can be deductive or inductive. A deductive approach is concerned with theory testing. An inductive approach involves the generation of new theory. A deductive approach regularly begins with a hypothesis

(the emphasis is generally on causality), while an inductive approach uses research questions to narrow the scope of the study with the aim of exploring new events or looking at previously researched areas from a different perspective

3.3.1 Inductive and Deductive

Besides that, another main reason for one's selection of a research approach is to decide the most incisive way of understanding the nature of the problem. This approach can be either deductive or inductive.

It is essential to consider the research approach to making explicit the theories that lie behind the research design. By doing this, it enables the researcher to make more informed decisions, to identify what will work and what will not and to adopt the appropriate research design to cater for constraints. Saunders et al. (2012) argue that the development of theory provides a critical reason for identifying the relevant pre-existing theories to guide the writing of research questions and objectives. However, the researcher did not aim to test pre-existing theory as in a deductive study but rather aimed at exploring a topic and developing a theoretical explanation which was expected to emerge as the data were collected and analysed. This implied the adoption of an inductive research approach.

An inductive approach implies that theory is built from the observations of empirical reality (Anderson, 2009; Collis & Hussey, 2013; Eriksson & Kovalainen, 2008). The main focus in the inductive approach is on collecting data from the real world and then using this data as a resource for developing explanations or theories. Thomas (2003) describes the inductive approach as a systematic method for analysing qualitative data, which is characterised by precise objectives.

In contrast, the focus in the deductive approach is testing existing theories rather than developing novel explanations and this is based on the positivists' philosophy (Strauss & Corbin 1998). The deductive approach generally associated with quantitative research, while the inductive approach is associated with qualitative research. Table 3.4 below illustrates the comparisons between deductive and inductive approach.

Table 3-4: Comparisons between inductive and deductive approaches (Source: Saunders et al., 2012)

Inductive	Deductive
Gaining an understanding of the meanings attach to events	Scientific principles
Moving from data to theory	Moving from theory to data
A close understanding of the research Context	The need to explain casual relationships between variables
Collects qualitative data	Collect quantitative data
	The application of controls to ensure validity of data
A more flexible structure to permit changes of research emphasis as the research progresses	A highly structured approach
A realisation that the researcher is part of the research process	Researcher's independence of what is being researched
Less concern with the need to generalise	The necessity to select samples of sufficient size in order to generalise
	Conclusions

Thus, this research was committed to adopting an inductive approach. Based on Table 3.4, this research conducted an in-depth study in order to understand the phenomenon of knowledge sharing. Further, the researcher collected and analysed qualitative data, and there is less emphasis on generalisation within the research as it is subjective within a social construct.

3.3.2 Justification of the choice of the Inductive Research Approach

One major feature of qualitative data is that they can be collected from naturally occurring, ordinary events in their natural settings, which result in a real-life view. Richness and holism, with a strong potential for revealing complexity, are other features of qualitative data (Al Shamsi, 2009). The fact that typically the data are collected over a sustained period makes this a powerful means for studying a process. Saunders et al. (2012) argue that the inductive approach places emphasis on gaining access to understanding the meanings which humans attach to events, a close understanding of the research context, the collection of qualitative data, more flexible structure to permit the changes of research emphasis as the research progresses, a realisation that the researcher can be part of the research process and less concern with the need to generalise. The present study follows the inductive approach, where data is used to explore a phenomenon, identify the themes and generate the theory. By adopting the inductive

approach, the researcher aimed at ensuring that all areas were covered regarding understanding the deeper structure of the research problem.

In this study, the inductive approach was selected because of its interpretive nature for addressing the research focus. First, it can be viewed as a phenomenon experienced by the participant. In addition to the above views, the interpretive approach was appropriate for investigating how knowledge could be shared by using social media platforms and based on participants' experiences on social media platforms. The inductive approach appeared to be much more flexible. It is descriptive and seeks to discover and understand the phenomenon, process, perspectives and worldviews of the people involved (Liu, 2016)

In addition, semi-structured interviews permit an understanding of the meanings that are attached to events to emerge in a dialogue. Adopting the inductive approach aims to ensure all areas are covered regarding understanding the deeper structure of the research problem. For these reasons, the inductive approach was chosen for this study.

The decision to indicate a precise methodology should be based on its appropriateness for answering the research questions (Neuman, 2002). Easterby-Smith et al. (2008) propose that understanding philosophy assists in refining and specifying which research methods are to be used to clarify the type of evidence gathered and its source so as to answer the research questions; to evaluate different methodologies and methods that could preempt inappropriate uses of methods and to be creative and innovative in either selection or adaption of methods. Denzin and Lincoln (1998) state that qualitative research emphasises the process of discovering how social meaning is constructed and stresses the relationship between the investigator and the topic studied. Conversely, quantitative research is based on the quantity and the analysis of underlying relationships between variables. Neuman (2002) differentiates between qualitative and quantitative research arguing that qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and descriptions of things, while quantitative analysis relates to the measurement and counts of occurrences.

The type of research or subject under investigation that researchers wish to undertake will determine the methods that they shall use. According to Collis and Hussey (2013), quantitative and qualitative methods differ in terms of their underlying principles, character and process. In the past, both were separated from each other and only recently, efforts have been made to combine both quantitative and qualitative methods to provide a more comprehensive understanding of the phenomena under investigation (Patton 2005). The traditional perspective

of research methodology states that there are two general approaches: quantitative and qualitative research. This traditional view indicates that quantitative research deals with data that is quantified, while qualitative research examines data that is of a narrative nature.

3.4 Research Choice

3.4.1 Qualitative

Qualitative research is used when an event or process is challenging to study using a quantitative approach. It represents the opportunity for in-depth probing and diagnostic exploration. It may support the uncovering and understanding a phenomenon about which little is known and will enable the researcher to understand the meaning of what is going on (Gillham, 2000).

Gephart (2004, p.2) defines qualitative research as ‘a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live’. Murphy (1995) promotes the use of the qualitative approach and states that, unlike quantitative research which establishes the substance of relationships regarding influences and action, that qualitative analysis is interested in the depth of the information required to make sense of an individual’s actions and experiences.

The qualitative approach typically leads to a sustained interaction between researchers and participants (Creswell, 2014). It is a ‘multi-method’ approach, involving an interpretive and naturalistic approach to the subject matter. This means that:

...qualitative researchers study things in their natural setting, attempting to make sense of, or interpret phenomena regarding the meanings people bring to them.... seek to make sense of personal stories and the way in which they interact (Thomas, 2003, pp.1-2).

This approach can be achieved, for example, by using interviews, observations, films or documentation analysis (Bryman & Bell, 2011; Cooper & Schindler, 1998;). The method acts as an instrument for collecting data, and the results are based on the researcher’s interpretation (Bryman & Bell, 2011; Patton, 2002;). The researcher adopted a qualitative approach and discussed the advantages of that methodology below.

The qualitative research approach focuses on naturally occurring events, and as a result, qualitative research tends to illustrate what real life is like. It offers the researcher the opportunity to explore in greater depth the use social media platforms in the setting of

universities by establishing interaction and developing working relationships with a participant to gather relevant data as they relate to social media platforms based knowledge sharing in selected universities

The researchers can get a better understanding of the participants to the research. Instead of just answering ‘what’, ‘how much’, ‘how many’ questions; qualitative research rather focuses on answering questions about ‘how’ and ‘why’ things happened (Saunders et al., 2012). It seeks to investigate how social media platforms can facilitate knowledge sharing and what and how the influences of organisational elements can contribute to it. This leads to a more in-depth understanding of the research issues (Miles & Huberman, 1994). Moreover, it offers the researcher an opportunity to investigate information holistically and richly and thus, lead to a rich understanding of the context (Amaratunga et al., 2002; Miles & Huberman, 1994; Patton, 2002).

Nevertheless, there are certain limitations in conducting qualitative research. For example interpretation of the findings may create bias since interpretation is dependent on the researcher’s characteristics and personal experiences (Bryman & Bell, 2011). Furthermore, proponents of the quantitative approach argue that this approach can lead to a lack of consistency and reliability (Myers & Avison, 1997) and results from qualitative research also frequently have limited generalisations.

3.4.2 Quantitative

In contrast, the quantitative research approach generally falls under the philosophical paradigm of positivism (Saunders et al., 2012). The quantitative research approach originates from the natural sciences, and normally aims to study natural phenomena. Techniques for collecting data include surveys, experiments and mathematical modelling (Collis & Hussey, 2009; Saunders et al., 2012). Quantitative methods often aim at testing an existing theory by measuring and explaining results scientifically (Creswell, 2014). Accordingly, it is characterised by by numerical data analysis rather than narrative explorations (Bryman & Bell, 2011; Maxwell, 2012). This method attempts to answer ‘how much?’ or ‘how many?’ type questions (Maxwell, 2012; Yin, 2009).

A quantitative research approach allows the researcher to focus on a specific problem (Collis & Hussey, 2013). Moreover, findings based on this approach have high validity and reliability since it uses statistical measurements to validate and test results for reliability (Creswell, 2014).

High degrees of validity and reliability are based on large sample sizes which permit the findings to be validly generalised to the wider population from which the sample has been drawn (Saunders et al., 2012; Yin, 2009)

Qualitative and quantitative research approaches contrast mainly in some significant areas, including philosophical assumptions, method or types of research, purpose or goal of research, questions or hypothesis, participants in the research, those conducting research, data and data analysis (Eriksson & Kovalainen, 2008; Oates, 2005).

Snape and Spencer (2003) indicated that qualitative research is a naturalistic or interpretative approach concerned with understanding the meanings people give to the phenomena within their social setting. A number of key elements which distinguish the qualitative approach include: it is the approach which provides a deeper understanding of the social world, it is based on a small scale sample, it uses interactive data collection methods, for example, interviews and it allows new issues and concepts to be explored. Table 3.5, below, is a summary of the comparison between the qualitative and quantitative methods.

Table 3-5: Component comparison between quantitative and qualitative research approaches (Sources: Cavana et al., 2001, p. 35; Neuman , 2002, p. 14)

Quantitative Research	Qualitative Research
Reality is objective and singular, and apart from the researcher	Reality is subjective and multiple, as seen by participants in a study
Researcher that being is independent of that being researched	Researcher interacts with that being researched
Research is assumed to be value-free and unbiased	Research is value-laden and biased, with values generally made explicit
Theory is largely casual and deductive	Theory can be causal or non-causal, and is often inductive
Hypotheses that the researcher begins with are tested	Meaning is captured and discovered once the researcher becomes immersed in the data
Concepts are in the form of distinct variables	Concepts are in the form of themes, motifs, generalisations, taxonomies
Measures are systematically created before data collection and are standardised	Measures are created in ad hoc manner and are often specific to the individual setting or researcher
Data are in the form of numbers from precise measurement	Dara are in the form of words from documents, observations and transcripts
There are generally many cases or subjects	There are generally few cases or subjects
Procedures are standard, replication is assumed	Research procedures are particular, and replication is rare
The analysis proceeds by using statistics, table or charts, and discussing how what they show relates to hypotheses	Analysis proceeds by extracting themes or generalisations from evidence and organising data to present a coherent, consistent picture

3.4.3 Justification of choice of the Qualitative Method

Based on the quantitative and qualitative approaches discussed above, and given the nature of this study, the qualitative method was considered most appropriate as the research methodology.

The qualitative approach is exclusively used in research which follows the interpretivism philosophical paradigm, while the quantitative method is mainly used for research which falls under an umbrella of positivist philosophical paradigm (Creswell, 2014). The qualitative approach normally leads to sustained and intensive interaction with participants (Creswell, 2014; Merriam, 2009; Merriam & Tisdell, 2015). It is a ‘*multi-method*’ approach, involving an interpretive and naturalistic approach to the subject matter. This means that “*qualitative researchers study things in their natural setting, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them.... seek to make sense of personal stories and the way in which they interact* (Thomas, 2003, p. 2). This approach can be achieved, for example, by using interviews, observations, films or documentation analysis (Cooper & Schindler, 1998). The method acts as an instrument for collecting data, and the results are based on the researcher’s interpretation

It will help to uncover and understand a phenomenon about which little is known and the key concern to understand the phenomenon if interests from the participant's perspectives Merriam (1998)

Regarding the illustration of the comparison of the implication to the research methods in Table 3.6 it is in line with the research aim and objectives.

Table 3-6 Component comparison between quantitative and qualitative research approaches

Quantitative research	Qualitative Research
Reality is objective and singular, and apart from the researcher	Reality is subjective and multiple, as seen by participants in a study
Researcher that being is independent of that being researched	Researcher interacts with that being researched
Research is assumed to be value-free and unbiased	Research is value-laden and biased, with values generally made explicit
Theory is largely casual and deductive	Theory can be causal or non-causal, and is often inductive

Hypotheses that the researcher begins with are tested	Meaning is captured and discovered once the researcher becomes immersed in the data
Concepts are in the form of distinct variables	Concepts are in the form of themes, motifs, generalisations, taxonomies
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Procedures are standard, replication is assumed	Research procedures are particular, and replication is rare
The analysis proceeds by using statistics, table or charts, and discussing how what they show relates to hypotheses	Analysis proceeds by extracting themes or generalisations from evidence and organising data to present a coherent, consistent picture

Source: Cavana et al. (2001, p. 35); ; Neuman (2002, p. 14)

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It will help to uncover and understand a phenomenon about which little is known and the key concern to understand the phenomenon if interests from the participant's perspectives Merriam (1998)

Regarding the illustration of the comparison of the implication to the research methods in Table 3.7 it is in line with the research aim and objectives.

Table 3-7: Summary of comparison Qualitative and Quantitative

Criteria	Qualitative	Importance	Quantitative	Relevance	Implication
Philosophical Paradigm	Interpretivism	Yes	Positivism	No	Researcher close to what is being investigated and interprets the meaning using own knowledge and experience
Purpose	To explore what happened in real life and will develop a theory	Yes	To test the theory (confirm/reject the theory)	Yes	This research aims to explore in in-depth on how social media platforms can assist academic staff in knowledge sharing and to identify the influenceorganisational elements that contribute to knowledge sharing by using social media platforms.
Research question	How, why — focus on word and explanation	Yes	What, how much, how many, how often—focus on the number	No	To answer the questionof why social media platforms can be used for knowledge sharing and how the organisational elements can support academic staff
Data collection technique	Observations, interviews, focus groups, documentation	Yes	Surveys, experiments, and mathematical modelling	No	Using semi-structured interviews; supplemented by documentation
Quality of data	The data is rich and deep of information, but the bias arises as it depends on the researcher interpretation	Yes	High validity and reliability since it uses scientific measurement but minimal information	No	It is rich and in-depth information form data triangulation

Result	Results have limited generalisation to other research in a different context — the result from small number of participants	Yes	Results can be generalised to other research, since they are derived from a good representative sample (large sample)	Possibly	This research only collects from 32 participants, and the finding may apply to this group of participants.
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Source: Adopted from (Cavana et al., 2001; Creswell, 2014; Hussey & Hussey, 1997; Merriam, 1998; Yin, 2009)

The purpose of the study was to investigate and identify the influence of organisational elements that can contribute to using social media platforms intended for knowledge sharing; besides that, it was intended to study events in their natural setting to interpreting phenomena regarding the meaning social media platforms to them. The focus was on participants' multiple perceptions, meanings of events and the researcher's understanding of these. Thus, the qualitative approaches which were used were expected to provide a better account for the complexity of group behaviours and reveal interrelationships among social media platforms and knowledge sharing.

The researcher found a qualitative description of their experiences and an inductive analysis of data as most appropriate for this research because all these procedures enhanced the possibility for some in-depth insights which would have been lost if quantitative or experimental strategies were applied. Furthermore, constructed knowledge is not a truth that remains stable and generalisable across all possible contexts; instead, it exists within specific contexts and perspectives - knowledge that may profess to be the truth for one context may not be truth for other contexts.

Furthermore, the researcher was able to acquire insights and an in-depth understanding through the various perspectives of interviewees and by critically evaluating relevant documentation. Cavana et al. (2001:34) commented that “...*qualitative research reveals people's values, interpretative schemes, mind map, belief systems and rules of living so that the respondent's reality can be understood.*” This understanding helped the researcher to explore the phenomenon of using social media platforms for sharing knowledge. Furthermore, the research also explored what and how the influential organisational elements impacted on the use of social media platforms. Qualitative research attempts to answer questions such as why and how. Besides that, the researcher used interviews and documentation, which allowed the researcher to gain a rich and in-depth understanding of the data. This is discussed in more detail in section 4.7 on data collection method. Based on the previous discussion, the researcher concluded that the qualitative method was a more suitable method for conducting this research and achieving the research aim.

3.5 Research Strategy

Having discussed the research philosophical stance, i.e. that the research approach of this work was within the interpretive paradigm, next the choice of a research strategy that was applied is discussed. The research strategy is a plan of how the researcher will go about answering the

research question (Oates, 2005) and, according to Saunders et al. (2012), this should be directly linked to the data collection method. This research relied on a qualitative research approach design (as discussed in Section 3.2.2), which is aligned to the interpretivism paradigm.

Saunders et al. (2012) identify eight different types of research strategies, namely, experiment, survey, archival analysis, action research, grounded theory, narrative inquiry and case study. Different research strategies are suited to certain research approaches and are, therefore, mainly used within specific settings.

Experimental and quasi-experimental designs have been identified as appropriate to validate or oppose hypotheses. Particularly used in natural science and medical research, they are key methods to investigate causal relationships (Babbie, 2007). Survey research is also recognised as a positivist based methodology that can be used for descriptive, exploratory and explanatory purposes, although it is most often used for descriptive study (Saris & Gallhofer, 2014). Babbie (2007) describes surveys as the most appropriate method to gather original data for the description of a population that is too wide and that cannot be observed completely. Although these are separate methods, they are known to overlap; for instance, Saris and Gallhofer (2014) explains that experiments can be carried out using survey research with the support of computer assisted data collection.

Constructionist research designs relate to the relativist assumptions that truth is not absolute, that researchers are required to highlight different truths, and that both truth and reality are constructed through human interactions (Easterby-Smith et al., 2012). Action research and co-operative inquiry are methods that emphasise the participation of the researcher in the investigation. In contrast to experimental research that seeks to generalise explanation to all contexts, action research and co-operative inquiry seek to gain understanding to find solutions to a problem with the aim of enhancing effectiveness. These methods are often used in community-based research where a collaborative approach aims to achieve particular objectives in an harmonious and productive way (Stringer, 2007).

Ethnographic research seeks to provide an accurate picture and description from detailed observations of people in their natural and cultural settings, as opposed to providing explanations (Silverman, 2001). Babbie (2007) refers to ethnography through the notion of naturalism, which he states originated from the need for researchers to observe and report social reality.

Narrative methods are considered within the dimension of ethnography (Cresswell, 2007). They draw attention to the concept of narration as a source of knowledge where individuals share their experiences through stories (Elliott, 2005). The focus of the methods is on the narrated story and the way that the story is narrated. As a listener, the researcher is considered a participant in the narration. Elliott (2005) mentions that the use of narrative methodologies is based on the particular interests of the research in finding out about people's experiences with the understanding that experiences occur chronologically. These methodologies are also used when there is an interest in process and change over time, and a desire to empower participants by allowing them to consider the most relevant themes in a particular research area.

Easterby-Smith et al. (2012) also highlighted the methodologies of grounded theory, case methods, and mixed methods, which they believe bridge the positions of constructivism and positivism, and can be used in one perspective or the other.

Grounded theory is a method characterised by a lack of preconception about findings and used with the aim to generate or discover a theory (Strauss & Corbin, 1990). The method dissimilarities with the traditional scientific theoretical positions as it emphasises the grounding of theory in actions, interactions and social processes (Strauss & Corbin, 1990). Grounded theory uses inductive reasoning as theory is generated from the analysis of patterns, themes and common categories of data collected from participants throughout the research process (Babbie, 2007). However, the application of the method by different philosophical perspectives has led to discussions often related to the meaning and procedures of the methodology (Cresswell, 2007)

Beside that, ethnography, which obtains to create how culture organise, a case study aims to understand a particular problem using specific contexts as examples (Cresswell, 2007). The methodology that derives from a positivist paradigm can also be applied to relativist and constructionist perspectives. Salkind (2010) states that, although case study is understood differently by researchers the common arrangement is that it involves a detailed inquiry into a bounded entity or unit, which underlines a case study as an object as opposed to a process (Stake, 1995). It is widely used and a useful approach in organisational studies for it allows the exploration of data within its context (Yin, 1994, 2014; Saunders & Lewis, 2012)

Yin (2009) states that choosing an appropriate research strategy entails considering three conditions.

- i) The type of research question posed
- ii) The extent of control the researcher has over actual behavioural phenomenon and
- iii) The degree of focus on contemporary as opposed to historical events.

The choice of the research strategy is based on the type of research questions that are posed, the extent of control that an investigator has over actual behavioural events and the degree of focus on contemporary as opposed to the historical events. Table 3.8 below presents a list of research strategies and the possible research questions that might be answered under each strategic choice. Thus, for example, the qualitative research is more suited to grounded theory and case studies, while the quantitative approach applies to experiment and survey (Creswell, 2014).

Table 3-8: Choice of research strategy (Source: Yin, 2009, p. 9)

Strategy	For of research question	Required control over behavioural events	Focuses on contemporary events	Implement to this research
Experiment	How, Why	Yes	Yes	No
Survey	Who, what, where, how, many, how much	No	Yes	No
Archival analysis	Who, what, where, how, many, how much	No	Yes/No	No
History	How, why	No	No	No
Case Study	How, why	No	Yes	Yes

Merriam (1998) specified that a case study strategy was appropriate if the research aimed to conduct an intensive study of a phenomenon within its natural environment. It has been selected here to acquire an in-depth understanding of the information necessary to investigate the influence of organisational elements that contribute to sharing knowledge by using social media platforms. Yin (2009) mentioned that a case study was applicable when ‘how’ or ‘why’ questions were being posed, as it allowed the researcher to explore not only what but also the ‘why’ and ‘how’ of the phenomenon being investigated. Furthermore, Yin (2009) also recommended that the case study strategy applied when the researcher had little control over the events and when the focus was on contemporary events. Thus, the present research was conducted into contemporary events over which the researcher had no control; therefore, the case study strategy was appropriate for this research.

Yin (2014) differentiates between four case study strategies based upon the two discrete dimensions namely single case versus multiple cases and holistic cases versus embedded cases.

Table 3-9: The basic types of case studies based on a 2 × 2 matrix. (Source: Yin, 2014, p. 50)

	Single Case Design	Multiple Case Design
Holistic (Single unit of analysis)	Type 1	Type 3
Embedded (Multiple units of analysis)	Type 2	Type 4

According to Yin (2009) multiple cases (more than one case) offer better opportunities for generalisation because there is more evidence from more than one case. Thus, the results of multiple cases are more robust than from a single case (Voss, Tsiriktsis, & Frohlich, 2002; Yin, 2009). Yin (2009) also argued that the single case is only applicable in the following circumstances: critical case, extreme or unique case, representative/typical case, revelatory case and longitudinal case. This research is only focused on higher education institutions in Malaysia. In a single unit case study, the aim is to increase theoretical replication; while in the multiple case study the aim is more on generalisation of results (Tellis, 1997; Yin, 2009).

Furthermore, it is argued that a single case is often used to represent a critical case or a unique case while the rationale for using multiple cases focuses on the basis that similar results can be replicated across cases. Yin's (1994) second separate dimension is holistic versus embedded case, which refers to a unit of analysis.

3.5.1 Justification of the use of the Case Study

This study considers multiple cases. Perry (1998) explains that the number of case studies chosen is at the discretion of the investigator and there is no rule for deciding this number in qualitative research. Yin (2009, p. 61) states that

...even if you can do a (two case) case study, your chances of a good case study will be better than using a single case-study. Single case studies are vulnerable if only because you have put all your eggs in one basket. More important, the analytical benefits from having two or more cases may be substantial.

For the reasons discussed here, it was decided to adopt the case study approach for this research to gain an in-depth understanding of personal issues in the organisations concerned and to gather the information necessary to address the aim of this study. As Collis and Hussey (2014) mention, the case study involves an extensive examination of a single instance of a phenomenon of interest. It was adopted because it was appropriate to the aims of this research and in line with the time constraints applying. It allowed the investigator to focus on a particular topic of research and to attempt to identify interaction processes at work. It had the additional advantage of being able to draw on a variety of evidence such as interviews and documents.

The use of a case study for the purpose of this thesis is consistent with the view of Yin (2009) which emphasises that case study research deals with an empirical inquiry that investigates a contemporary phenomenon, which is explored by the researcher within its real-life context. The rich context and lack of control over the events in this research, which is a characteristic of case studies, decide it the best method to choose.

There are a few reasons why HEIs in Malaysia are chosen as suitable cases for this research. HEIs are becoming more immediately relevant than before. Sohail and Daud (2009) cited that within HEIs, which serve as a reservoir of knowledge, the members shall be able to manage, blend and share their knowledge to research and implement knowledge management continuously.

Firstly, HEIs are increasingly becoming more relevant to societies than ever before. The HEIs are knowledge-intensive environments and have played important roles in the exchange of knowledge, and accordingly, it needs to adopt a sharing approach. Apart from that, HEIs could be responsible as academic institutions for actively fostering and promoting knowledge sharing.

Secondly, most of the research on knowledge sharing in developed and developing nations is centred on private and profit-making organisations with little reference to service organisation such as educational institutions. Sustaining this claim Fullwood, Rowley, & Delbridge (2013) also stated that HEIs function as organisations that promote knowledge creation through research, and which is then disseminated. They play a role in sharing knowledge when communicating with the people to support innovation as well as supporting learning through teaching and training.

Lastly, accessibility is a relevant issue in a researcher's choice of case studies because accessibility enables the researcher to acquire the data required for the research (Silverman, 2002). For this purpose, universities have been selected as case studies as more easily accessible than most private organisations in Malaysia. The access was achieved by the researcher meeting and discussing with either the administration or registrars of the universities about the research, some of which directed that the researcher be introduced to interviewees and make them comfortable to join in discussing the researcher's questions.

3.5.2 Justification of the selection of the four case study universities

The primary data for this research were collected from 4 universities in Malaysia. The selected case organisations have been selected based on their similarities and differences. Regarding similarities or the typical instance, these organisations are all universities, set up for a similar purpose which is educationally grounded. On the other hand, case universities have been selected due to their differences in classification and governance– that is public and private universities.

The study sought to explore knowledge sharing by using social media platforms in the public and private universities. Similar multi-case sampling has been used in studies that seek to emphasise and understand more complex phenomenon. In their studies Ramachandran et al. (2009) use up to nine case studies in each based on that the variation due to the different contexts requires additional cases and determined that the practice of KM processes, namely creation, sharing, storage and application of knowledge was better in private than public HEIs. A survey of forty-two employees within one of Malaysian private HEIs, conducted by Hitam and Mahamad (2012), revealed that knowledge sharing practice increased through the implementation of information technology and reward systems. Universities put a lot of efforts in the utilisation of social media platforms to share academic knowledge for the benefit of its students, academics, researchers, and support staff. Furthermore, Sohail and Daud (2009) carried out thirteen cases and showed that the knowledge and working culture play a vital role in facilitating knowledge sharing among academic staff within Malaysian private universities.

Zawawi, et al. (2011) stated that only 29.4% of the public Malaysian HEIs staff have the positive culture in their routine work. The study also reveals that the awareness of the importance of knowledge sharing culture only exist in five public universities in Malaysia. In a study by Ghazali et al. (2015), it was revealed that in public universities in Malaysia, social

media platforms enable academic to share knowledge. Social media platforms play a essential role in generating scholarly knowledge and learning among their students in the institutions

Under this competitive environment, it is interesting to study the of knowledge sharing among academics and elements that have motivated them to share knowledge by using social media platforms between public and private universities.

Therefore, this section provides a general overview of these four universities. The information presented in this section was gathered from the Registrar Office and official University websites. For confidentiality purposes, those characteristics could make the universities easily identifiable and accordingly, they are not discussed.

3.5.2.1 An overview of University ‘A’

University ‘A’ is Malaysia's largest institution of higher learning in terms of size and population. Besides the main campus in Shah Alam, the university has expanded nationwide with 13 state campuses and more than 21 state satellite campuses, which collectively offers more than 500 academic programmes. Since its establishment, The University has created a system called 1 University 2 System (1U2S). Based on this system, there is an anchor for university and 12 state universities.

The anchor university assumes the role of the administrative centre and the state universities are autonomous state administrations. The University is headed by a Vice Chancellor while the state campus is headed by a Rector, who is directly accountable to the Vice Chancellor. The anchor university consists of the Shah Alam Main Campus and satellite campuses (PuncakAlam, Selayang, Sungai Buloh, PuncakPerdana, JalanOthman, Section 17 and Dengkil), while the autonomous state campuses consist of all the state campuses and state satellite campuses. All branch campuses will be given autonomous status in phases. As of June 2014, there are seven state campuses which have been given autonomous status namely, the Perlis, Perak, Terengganu, Sarawak, Melaka, Pulau Pinang and Pahang campuses. (University ‘A’ website 2018)

The university is made up of a number of faculties and academies. It is categorised into three main clusters namely business and management; social sciences and humanities; and science and technology. As of May 2015, 470 programmes were offered by the University consisting of degrees at doctoral, master, bachelor, diploma and certificate levels. A total of 286 programmes were based on science and technology while another 184 programmes were non-

science and technology (University Website). In addition, 94 professional programmes (local and international) were offered by the university.

This 62-year-old higher-education institution has a selective admission policy based on entrance examinations and students' past academic record and grades. International students are welcome to apply for enrolments.

The university was selected because of its commitment to promoting the use of social media platforms among their staff and students. This was not just confined to its own institutions but also was accessible by other external institutions. Moreover, it was chosen because of its strategic importance as a world-class research university with a wide range of specialised courses and subjects at the professional diploma, undergraduate and postgraduate levels, had a large student population, including many international students from a diverse range of cultural backgrounds which could also reflect the diversity of the social media platforms.

3.5.2.2 An overview of University 'B'

University 'B' is a leading innovation-driven entrepreneurial research university in engineering science and technology located both in Kuala Lumpur, the capital city of Malaysia and Johor Bahru, the southern city in Iskandar Malaysia, which is a vibrant economic corridor located in the south of Peninsular Malaysia.

The university has 2624 academic staff and is a public research university in Malaysia and a research-intensive university in engineering, science and technology. The main campus is located in Iskandar Puteri, Johor and it has a branch campus in Kuala Lumpur.

The University is a graduate-focused university with 56% of its student population consisting of postgraduate students, the highest in Malaysia. As of 2015, the university had more than 5,000 international students from more than 100 countries, making it the highest-ranking research university in Malaysia.

The Ranking of World Universities places The University is ranked in the fourth place in the South East Asia Region, and the top in Malaysia (Webometrics Ranking of World Universities in South East Asia Region). In the QS University Rankings, it is placed at 100 in the "Engineering & Technology Universities" category among other world ranked universities in 2016. The University aims to achieve the status of a global university and to rank among the top 50 of the world's best universities by 2020. (University 'B' website 2018)

3.5.2.3 An overview of University ‘C’

University ‘C’ was established as a private higher educational institution under the Private Higher Educational Institutions Act 1996 (Act 555) in September 2003. The University offers a wide range of educational opportunities in the field of information technology, computer science, accounting, business management, engineering and health sciences.

It all started in January 1983 with the establishment of the Learning Resource Centre in Kota Bharu, Kelantan. In June 1983 Maktab Sains MARA (also known as MARA Community College) in Kuantan, Pahang was formed. At that time, it offered a twinning programme known as the American Associate Degree (AAD) With more than 75 universities accepting the programme in the United States and New Zealand as a 2+2 transfer degree programme.

According to the the University the real force was built through its excellent track record and the merging of two MARA’s renowned institutions, for example, Kolej Yayasan Pelajaran MARA (KYPM) and Akademi Infotech MARA (AIM). The University has grown to be among the biggest Bumiputra private educational institutions with more 12,500 full-time students spread over seven campuses, with Kuala Lumpur as the main campus and branches in Bangi, Kuantan, Kota Bharu, Alor Setar, Ipoh, Batu Pahat and Semporna. (University ‘C’ website 2018)

3.5.2.4 An overview of University ‘D’

University ‘D’ is one private of Malaysia's top universities, with a focus on developing and delivering quality human capital in national and global critical-need areas.

The award-winning home-grown study programmes of the university meet stringent standards set by both local and international bodies. The University has been accorded ‘Excellent Status University’ twice on the national university-rating system and named the ‘Most Entrepreneurial Private University’ by the Malaysian Ministry of Higher Education. A recent rating by the QS 2016 Rating placed the university on world-class standards and awarded it 5 Stars for ‘Teaching, Employability, Facilities, Social Responsibility, and Inclusiveness’.

The University offers top priority to building both students and faculty and enhancing graduate employability. Engaging highly qualified academics and international visiting professors, the university delivers compelling learning experiences within the framework of a holistic curriculum. Collaborative, industry and enterprise embedded, the university blends global exposure with extensive industrial training to enrich the personal competencies of its graduates.

As an applied and enterprise university, the university offers programmes of study at various levels such as postgraduate, undergraduate, and foundation levels, through connected pathways that admit students from all walks of life and personal backgrounds (University Website)

3.6 Time Horizon

There are two most important time horizons for research design: cross-sectional and longitudinal. Cross-sectional studies are normally time-bound and present a picture of the phenomenon within a fixed timeframe. On the other hand, longitudinal studies take place over a prolonged time period, typically over a number of years and is usually interested in discovering how a phenomenon changes or develops over time. Cross-sectional studies are used in most branches of science, while in the social sciences and other fields, they take a cross-section of a target group and base their overall findings on the views or behaviours of those targeted. A cross-sectional study is a method used to investigate variables or group of subjects in different contexts over the same period (Collis and Hussey, 2014). point out that cross-sectional studies often use the survey strategy. They may be seeking to explain how factors are related in different organisations or seeking to describe an incidence of a phenomenon.

However, the study may also use qualitative or mixed methods research strategies. However, Collis & Hussey (2014) point out that a cross-sectional study is usually conducted when there is a limited resource or time constraint. Data are collected once over a short time period, analysed and findings reported. Collis & Hussey (2014) also mention that cross-sectional studies are usually not expensive due to the short timeframe problems of change in the phenomenon under investigation rarely arise.

In contrast, a longitudinal study is a methodology used to investigate variables or a group of subjects over a long period (Collis & Hussey, 2014). The main aim of the longitudinal study is to examine the dynamics of a research problem by investigating the same variables or group of variables over the time period in which the phenomenon occurs. According to longitudinal studies provide a researcher with a measure of control over some of the variables being studied.

In this research, the researcher collected the data within a short period of four months. Therefore, the present study is cross-sectional in terms of time horizon. The data collection schedule is presented in Table 3.10 below.

Table 3-10: Data collection schedule

University	Number of Participants	From	Until
University A	9	1 st July 2017	10 th July 2017
University B	8	11 th July 2017	23 rd July 2017
University C	8	24 th August 2017	10 th September 2017
University D	7	13 th September 2017	12 th October 2017

3.7 Data Collection Methods

A method may be defined as a technique used for collecting and analysing data during research (Collis & Hussey, 2014). The collection of evidence or data by a researcher depends on the research strategy and tactics being followed as well as on the research question. A combination of data collection techniques is frequently required in a single research to support various research strategies. For a researcher to answer some of their research questions or achieve their objectives, data needs to be collected to be analysed.

As with any empirical research, data collection is the backbone of the case study (Yin, 2009). Yin (2009: p. 102) proposes six significant sources of evidence to be used in case studies. The strengths and weaknesses of the significant sources of evidence are summarised in Table 3.11. This study uses semi-structured interviews as the primary method, supplemented by documentation reviews as further sources of evidence to satisfy the requirements of research validity and reliability.

Table 3-11 Strengths and weaknesses of six sources of evidence (Source: Yin, 2009, p. 102)

Sources of evidence	Strengths	Weakness
Documentation	Stable: Can be reviewed repeatedly Unobtrusive: not created as an outcome of the case study Particular: encloses precise names, references, and details	Retrievability: can be low Biased selectivity, if the collection is incomplete Reporting bias: reflects the bias of the author Access: may be deliberately blocked
Archival records	Same as above Precise and quantitative	Same as above Accessibility may be limited for private reasons
Interviews	Targeted: focuses directly on case studies Insightful: provides perceived causal inferences	Bias due to poorly constructed questions Response bias Inaccuracies: Interviewees say what they think the interviewer wants to hear
Direct Observation	Reality: covers events in real time Contextual: covers context of events	Time-consuming Selectivity: poor, unless broad coverage Reflectivity: events may be processed differently
Participant/ direct observation	Same as for direct observation Insightful into interpersonal behaviour and motives	Same as for direct observation Bias due to investigator's manipulation of events
Physical artifacts	Insightful into cultural features Insightful into technical operations	Selectivity Availability

The above table identifies data collection methods which can be used independently or collectively, depending on the nature and requirement of the research. Based on the aim and objectives of this research and its interpretivism philosophical stance, using an inductive approach, a qualitative research method was adopted as the appropriate data collection method. The researcher employed two methods in the course of the study: semi-structured interview and documentation.

3.7.1 Justification of the choice of Semi-Structured Interviews and Documentations

3.7.1.1 Semi-Structured Interviews

Easterby-Smith et al. (2015) define the semi-structured interview as a non-standardised interview where the interviewer has a list of themes or questions to cover. As Saunders et al. (2012) mentioned, the semi-structured interview is a qualitative data collection method which

is flexible enough to explore areas as they arise during the interview process. Open-ended questions were put to participants to gain insight into the subject being investigated in order to obtain valid data that were relevant to the research objectives. Yin (2009) considers the semi-structured interview to be a most important source of data in case study research; a view has been supported by Hussey and Hussey (1997), who notes that an interview may allow a higher level confidence than questionnaire responses and can benefit from nonverbal communication for more nuanced data.

Mason (2004) identifies three important characteristics of semi-structured interviews:

- i) A relatively informal discussion rather than formal question and answer format
- ii) Rather than a structured list of questions, the researcher prepares a range of topics, themes or issues to cover.
- iii) The data are generated via the interaction.

Interviews styles range from highly intuitive processes to those that are strictly fact-based, increasing the likelihood of receiving honest and revealing responses to structured questions. This method further allows for the social argument to create depth, communication, complexity and roundness in data. It is essential to elicit and understand the perceptions of the interviewees because certain individual assumptions and beliefs drive these.

Merriam (1998, p. 89) highlights the following advantages of semi-structured interviews:

- i) Allowing the individual freedom to create shared meaning with the investigator
- ii) Allowing the researcher to move back and forth in time to construct both the future and past
- iii) Allowing space for surfacing of additional arguments or adding different dimensions to perspectives
- iv) Creating access to data that would not generally be accessible in other ways
- v) Building an understanding between the interviewer and the participant that there can be more than one perspective on the same problem
- vi) Providing an efficient and practical way of obtaining data on things which cannot easily be observed, such as feelings and emotions

The semi-structured interviews fall into a middle approach between the structured and unstructured interviews. Semi-structured interviews with the academic staff in Malaysia HEIs have been conducted. It is a combination of a set of spontaneous questions that provide the

structure of the interview and at the same time, allow some flexibility to explore issues or emerging responses (Hussey & Hussey, 1997). Thirty two semi-structured interviews were conducted within the 4 cases (Malaysian HEIs). This number was suitable as it fell within the range of the fifteen to thirty interviews considered appropriate for qualitative research seeking.

A four-part interview guide that included the four main themes, concerning knowledge, knowledge sharing, social media platforms and organisational elements, and the key questions was developed based on the literature review. This ensured that the questions covered all the topics. Each of the four-part interviews started with a brief introduction to the theme about to be explored. Further, the findings, also referred as factors, from the data analysis were discussed in relation to the organisational elements. Through the literature, the interrelation between the findings, which actually influence the academic staff to share knowledge using social media platforms, the situation became clear.

This research follows the interview format suggested by Bryman and Bell (2015), which includes:

- The establishment of rapport
- Preparation of an interview guide
- Tape recording
- Appropriate closure

As the interviews were to be conducted in a semi-structured manner, the researcher prepared a list of interview topics rather than a prescriptive set of questions and these are presented in Appendix D. Thus, the questions to be covered and the order of questions in this type of interview could easily vary depending on the flow of the interview (Saunders et al., 2012). A formal letter of invitation (Appendix C) was sent to each participant through email. The data generated from the face-to-face conversations were tape-recorded using a digital recorder. The interview sessions, which were open-ended, emphasised the purpose of the research and assured the participants of their anonymity. The interviews were mainly conducted in English. A consent form (Appendix B) was prepared and given to the participants for signing before the interview sessions. The participants were encouraged to speak freely, and the interviews generally lasted about one hour. Despite the potential problems highlighted earlier, the face-to-face semi-structured interviews were seen as most appropriate for this research. The reasons for this include:

- Could not produce the depth of data during the interview
- Face-to-face semi-structured interviews mainly conducted at the University
- The semi-structured interviews allowed a close rapport between both parties which could facilitate a higher degree of trustworthy data

Although there is a significant risk of researcher bias, this can be minimised by triangulating the data with those collected by other methods, such as document review, thereby validating the findings.

The researcher was not known to most of the participants. Thus, the risk of bias was minimised. Furthermore, for minimise, bias on the part of the researcher, the researcher actively ensured the validity of her findings by working closely with other people, for example, academicians, practitioners or who were given the opportunity to comment on the outcome of the study. Apart from these measures, the researcher exercised great discipline, avoiding any presuppositions by bracketing off (epoche method) her own prior knowledge of the matter being investigated (Moustakas, 1994).

Cavana et al. (2001) has stated that the participants that are included in the sample must be as unbiased as possible. Thus, for the four case studies selected for the present research (hereinafter referred to as University A, University B, University C, and University D), the sample was of individuals who understood and agreed with the purpose of this study and who would respond honestly and accurately. However, because the information that was given from the participant was acquired from a single key informant, it was particularly important the data that was collected was accurate. The informant selected purposively and not randomly. As Saunders et al. (2012) clarify, it is essential that researcher collect their data from the most appropriate person in the organisation. Due to that, the following requirements had to be met by prospective participants in the present study:

Willingness to participate in the research project by allowing between an hour and one and a half hours for the in-depth interview, remaining available for follow-up- conversations if needed.

Having a knowledge and personal experiences of the subject (which applied to academic staff who had experiences with social media platforms and knowledge sharing)

Regarding the number of interviews required for qualitative or case study research, Patton (2002) states that no rules govern this, but that sample size in qualitative research depends on

the purpose of the study and on the time and resources available. Thus, the researcher decided to continue the interview participants from the research population until the ‘stability’ or the ‘saturation point’ was reached, where no new information emerged (Patton, 2002).

Each of the interviews lasted for approximately 1 hour, and in total 32 participants took part representing 4 Malaysian HEIs. The participants were drawn from the management team, senior staff and junior staff.

3.7.2 Documentation

Yin (2009), suggests that documentary information is likely to be relevant to every case study topic, adding that one of the most important uses of documents is to corroborate evidence gathered from other sources. Document analysis is often used in combination with other qualitative research methods as a means of triangulation—‘the combination of methodologies in the study of the same phenomenon’ (Denzin, 1970, p. 291). According to Saunders et al. (2012) the documents can be of two different forms, written and non-written materials. Therefore, to provide qualitative data, the researcher used documentary data, which can be considered to be important raw data sources in their own right and can be analysed qualitatively. Examples of documentation that may be used include printed documents, electronic documents, website materials, letters, memoranda, agendas, administrative documents, newspaper articles, study reports, advertisement, maps, charts, application forms, survey data, radio and television programmes, organisational report, program proposal, website materials and any documents related to the topic which is being researched (Bowen, 2009; Yin, 2009). Such material helps the researcher to support the evidence from other techniques as the basic information on written papers that have been recorded without a researcher’s intervention (Bowen, 2009). Apart from that, by examining information collected from different methods, the researcher can support findings across data sets and thus reduce the impact of potential biases that can exist within the study (Denzin, 1970)

Table 3-12: Summary of documents for the current research

Job Description	University A, University B, University C, and University D
Newspaper cutting (21 June 2017)	University A and University C
Website	University A, University B, University C, and University D

University Social Media Report	University A and University D
University Social Media Guidelines (2015)	University A
University Social Media Policy (2016)	University B and University D
Minute Meetings 2017	University A
Social Media Guidelines Corporate Affairs	University D
MQA Self Review Report	University A
Letter of Appointment	University A, University B and University C
Teaching Module (I-Learn)	University A
Teaching Portfolio	University A, University B, University C, and University D
Social Media User Satisfaction Report (2016)	University A, University B, University C, and University D
Social Media Monitoring Report (2016)	University A, University B, University C, and University D
Minute Meeting JPWM 2016	University A
Quality Policy	University A, University B, University C, and University D

3.7.3 Developing the Interview Protocol

As already stated, data were collected through face-to-face interviews by means of interviews conducted in a semi-structured manner. This was complemented by documentary evidence. The interview protocol was designed in order to get an in-depth understanding of the views of the interviewees. The interview topics were written in English, and all the data initially translated, and the findings from the analysis of the data are presented in Chapter 5 (Data Analysis and Findings). All the interviews were transcribed verbatim.

The researcher developed interview topics based on issues drawn from the literature to provide an overall understanding of the research topic. Jacob and Furgerson (2012) state that an interview protocol is more than a list of interview questions; it also extends to the procedural level of interviewing and includes a script of what the interviewer will say before the interview, the script for what the interviewer will say at the conclusion of the interview, prompts for the interviewer to collect informed consent and prompts to remind the interviewer of the information that she or he is interested in collecting (p.2). Interview protocols become not only

a set of topics but also a procedural guide for directing the researcher through the interview process.

As Saunders et al. (2012) argue, the key to a successful interview is careful preparation using the ‘five Ps’ (prior planning prevents poor performance). Thus, before proceeding to the interview, the researcher introduced herself and explained the purpose of the study, by email and telephone.

Based on the literature review, the researcher developed interview themes and topics designed to collect in-depth information in the following key areas:

- Understanding of knowledge
- Understanding knowledge sharing
- Organisational elements of knowledge sharing
- Knowledge of social media platforms
- Knowledge of social media platforms as a tool for knowledge sharing

The list of questions was included in the interview protocol prepared as a draft, then discussed and reviewed by the researchers, supervisors and two fellow PhD students to enhance validity. A few amendments were suggested, and the draft was modified accordingly into a form adapted for the pilot study. Based on the verifying interview questions, some questions were further modified.

3.8 Fieldwork

Having discussed the case studies choices made, the following section discussed the procedures for both the pilot study and the main study.

The fieldwork began with a pilot study. As Yin (2009: 92) states, “*the pilot study helps the investigators to refine their data collection plans with respect of the data and the procedures to be followed*”. One of the advantages of conducting a pilot study was that it gave an advanced warning about where the main research project could fail or not, where research protocols might not be followed or were too complicated. Van Teijlingen and Hundley (2001) mentioned that a pilot study might also help to identify potential practical problems in following the research procedure. Beside of these issues, the pilot study was conducted to test the clarity of the interview questions. It also helped to assess the time required for each interview, to check the repetition of questions and to acquire feedback from participants on any misunderstanding

of questions. Thus, the researcher had the opportunity to review and modify the interview questions before the set interview questions were used in the case studies. In addition, the researcher believes that the pilot study helped to ensure the interview questions were accurately framed to achieve the research aim and objectives.

3.8.1 Verifying the Interview Questions

A pilot study offers researchers the opportunity to test and modify aspects of a field study Yin (2013). Before the actual process of data collection, the interview questions were conducted by a focus group. The focus group was conducted online. The pilot study aimed to identify how well the participants understood the questions and also to ensure that ambiguous or contradictory questions were rephrased correctly or deleted before conducting the actual interviews. As to verified the interview questions, one session has been conducted to fulfilled on it. The fulfilled its purpose for use.

3.8.2.1 Verifying the Interview Questions on E-focus group

An initial pilot was conducted mainly to get some preliminary data on knowledge sharing by using social media in general and also to make sure that the terms and themes used in describing the organisational elements in knowledge sharing by using social media were understood.

Lijadi and Van Schalkwyk (2015) state that online focus groups are interactive qualitative group discussions, comprising a selected group of individuals who have given consent and have volunteered to participate in a facilitated, predesigned, online discussion to explore a specific topic for the purpose of research. Most researchers agree that online focus groups could help reduce cost and remove the time and geographical constraints, as participants can log in anytime, anywhere and when it is convenient for them (Reid & Reid, 2005; Stancanelli, 2010)

Furthermore, the online focus group could be conducted synchronously or asynchronously. Synchronous focus groups occur in real-time (either audio or text) and require participants and researchers to join at the same prearranged time. This option is difficult to implement when recruiting participants from various countries around the world who could not necessarily be online at the same time for real-time discussions due to time zone differences. Asynchronous focus groups, on the other hand, are text-based and allow greater time flexibility and typically use online discussion boards or forums allowing participants and researchers to read the prompts and have more time for reflection before responding to the discussion. Nevertheless, the researcher decided to use an synchronous online focus group.

An online focus group using one of the social media platform online video was set up to attract the participation of academic staff. Five academic staff from one of the HEIs in Malaysia participated. There were one senior lecturer and four junior lecturers who mostly used social media platforms for their knowledge sharing. The interview was conducted in October 2016 and its findings resulted in minor changes and modifications being made to interview questions. For example, certain of the questions related to general knowledge on social media platforms, organisational culture should be modified and corrected it. Thus, from the online pilot focus group, the researcher took account of all comments by participants concerning a lack of clarity, generalisations in some of the questions, repetition in others and the length of some questions. The findings of the verifying of interview questions helped the researcher to achieve greater clarity in interview questions, modify the questions and to ensure that it covered the key points identified by the literature review. Apart from that, a neutral introduction was also added to create a more comfortable environment during the interviews and to reduce the likelihood of bias. All participants were happy to have their interviews voice recorded.

After completing the pilot interviews, the researcher spent a few days reading the responses and modifying the questions. The researcher checked whether the questions were realistic and appropriate for data collection.

Apart from the achievement of the research aim and objectives, the purpose of the pilot study was to create a neutral introduction in order to create a comfortable and relaxed environment during the actual interviews and to reduce the likelihood of bias.

3.8.2 Conducting the Actual Case Studies

Before beginning the actual interviews within the four case studies, the researcher contacted the University Registrar and The Chancellor of the University, who issued written consent to pursue the research topic in question. This step was taken to develop trust between the researcher and the participants.

Firstly, the researcher approached five professors, six associate professors and five academic staff who were in the management team, but only seven of them responded.

Secondly, the researcher approached about twenty-five senior staff from the four universities. However, only eleven finally participated in the interviews. The rationale for including the reduced number senior staff was that most of them were not interested in social media

platforms, and not all of them had social media accounts. Furthermore, most senior staff preferred to share their knowledge by face to face interview compared to using social media platforms. The senior staff that participated in this research actively used social media platforms and provided positive comments on knowledge sharing using social media platforms.

Also interviewed were fourteen junior staff who were actively using social media platforms and were active in sharing their knowledge, experience, and teaching materials on social media platforms. As noted above, the researcher herself is also a junior lecturer who was also totally committed to and actively using social media platforms for personal and academic purposes. This separation of level reduced the risk of bias during the study phase.

3.8.3 Selection of Sample Research Participants

The target participants for this study were the management team (rector, dean, head of department, professor, and associate professor), senior staff and junior staff (see Table 3.13 below). Individual in-depth interviews were conducted, which allowed participants to talk at length in their own words based on their understanding and experiences. For this research, the researcher expected to gather more data, feedback, and ideas from the academic staff on sharing knowledge by using social media platforms. This would enable the collection of valuable data on knowledge sharing and social media platforms.

Before proceeding to the actual main data collection phase, some interviews were conducted to verifying the interview questions (5 in total) to identify the type of information required to meet the research aim and objectives. Furthermore, the verifying of interview questions could helped the researcher to refine her data collection plans concerning both the content of the data and the procedures to be followed. It also tested the understanding of the interviewees regarding the organisational elements and resulted in some minor modification of the questions.

Table 3.13: List of Interviewees

POSITION	CODE	GENDER	UNIVERSITY CODE (UA, UB, UC, UD)	EXPERIENCES IN YEARS
Management Team Rector, Dean, Head of Department Professor, Associate Professor	MT1	Male	University B	13
	MT2	Male	University A	22
	MT3	Female	University A	10
	MT4	Female	University C	17
	MT5	Female	University D	15
	MT6	Male	University C	8
	MT7	Male	University B	20
Senior Staff	SS1	Male	University A	22
	SS2	Male	University D	25
	SS3	Female	University D	15
	SS4	Female	University C	18
	SS5	Female	University A	16
	SS6	Male	University A	13
	SS7	Male	University B	14
	SS8	Male	University B	15
	SS9	Male	University C	10
	SS10	Female	University D	11
	SS11	Female	University C	21
Junior Staff	JS1	Female	University D	3
	JS2	Male	University C	5
	JS3	Male	University A	4
	JS4	Male	University A	3
	JS5	Male	University B	2
	JS6	Female	University B	4
	JS7	Female	University B	5
	JS8	Female	University A	3
	JS9	Male	University D	4
	JS10	Male	University C	6
	JS11	Male	University B	4
	JS12	Female	University A	4
	JS13	Female	University D	4
	JS14	Female	University C	5

3.8.4 Time and Location of the Interview

The researcher obtained ethical approval from the University in January 2017. All interviews have been conducted at the convenience of the participants. The interviews took place between July and October 2017. Most of the interviews were conducted on campus but at different locations such as in the participants' offices, conference halls, university cafes and casual spots. The participants selected most of the locations.

The numbers of interviewees in each of the four case universities were nine in University A, eight in University B, eight in University C and seven in University D. They represented both senior and junior academic staff from the management team of the universities. It was covering these levels aided in enhancing the validity of responses, as it has been possible to triangulate data obtained from participants of different levels. The researcher had to travel to different states in Malaysia because of universities' locations. Firstly, before the setup of the meeting with the participants, the researcher met the registrars and in some cases, the chancellor to obtain permission to conduct the research by presenting the ethical approval, information sheet and consent sheets detailing the aims and objectives of the research. Some consent had been obtained immediately while some had to be processed before getting back to the researcher.

Before beginning the interviews, the researcher gave all participants consent forms, information sheets and areas of coverage and these forms had to be completed and returned to the researcher. All interviews have been conducted in English and participants allowed the researcher to record responses based on the condition that their identities would be anonymised. After each interview, participants were given the opportunity to make additional contributions as it related to social media platforms and knowledge sharing and the researcher thanked them for their participation and contribution. In return for their cooperation, the researcher gave them £10 expenses and pens as tokens.

Each of the interviews lasted for approximately 1 hour. In some cases, a second face-to-face meeting was held after coding the data to present tentative findings and obtain the participants' reactions. This enabled some of their suggestions to be modified where some changes were needed. As a result, the interviews proved to be an invaluable component of the research, as they provided specific examples of how social media platforms could be used as a medium for knowledge sharing and recommendations on how these could be influenced by organisational elements that could contribute to knowledge sharing.

From the different levels of academic staff, the researcher was able to gain an in-depth understanding and build a rich view of the different organisational elements that could contribute for social media platforms based knowledge sharing in the university. The content validity of interviews and interview questions was achieved through a review that was carried out by both of the researcher's supervisors.

There were differences in interview questions between different levels of academic staffs in the four case studies, because there were, for example, some issues that could be addressed

only by the management team and head of the department, rather than senior and junior staff. The reason for this was that they were dealing with the issues daily and so had built up detailed knowledge. Conversely, most of the questions related to organisational strategy, management support was asked of the management team.

All the participants were professional, efficient, resourceful, cooperative and truly supportive of the hour allotted to each interview without interference. Also, the participants invited the researcher to return at any time to enquire about the answers or to seek any other information. In this situation, the researcher had confidence in the accuracy of the interview process and increased the credibility, transferability, dependability and confirmability of the research. After each of the interviews, the researcher thanked the participants and gave them a token as an appreciation for their time and participation.

3.9. Data Analysis

3.9.1 Adopting Thematic Analysis

Analysing qualitative data can be accomplished in several ways such as by ethnographic analysis, narrative analysis, phenomenological analysis, content analysis and analytic induction (Merriam, 1998). Thematic analysis contributes to providing a rich thematic description of the whole data set and it is for this reason that it is a useful approach when exploring new or under-researched areas and is particularly relevant to knowledge sharing studies.

A well-conducted analysis involves some level of interpretation of the data. Using thematic analysis assists with this by bringing clear links between themes and the aims of the study to investigate the influences of organisational elements for social media platforms based knowledge sharing. Furthermore, according to Oates (2005) thematic analysis is a qualitative technique that analyses different topics covered within a selected document, while content analysis is a quantitative technique. Consequently, a thematic analysis was considered most appropriate for analysing the data in this research. Thematic analysis is used to identify and classify recurring themes that unify the data. It illustrates the data in great detail and deals with diverse subjects via interpretations (Boyatzis, 1998). However, a singular occurrence of an important element is also taken into consideration. Generally, however, thematic analysis allows the researcher to identify the connections between concepts and to compare them with the replicated data. By using, thematic analysis, there is the possibility to link the various

concepts and opinions of the participants and compare these with the data that has been assembled in a separate situation at different times during the research.

The purpose of thematic analysis is to identify themes, for examples issues in the data that are important or interesting, and to use these themes to address the research questions or reveal something more nuanced about an issue. This involves considerably more than simply summarising the data; a good thematic analysis interprets and makes sense of the data. The researcher followed concurrent activities in analysing qualitative data (data reduction, data display and drawing conclusion and verification) as suggested by Miles and Huberman (1994). The analysis process which was used when undertaking thematic analysis is presented in Table 3.14 below.

Table 3-14: Thematic Analysis Process (Source: Clarke & Braun, 2013, pp. 16-23)

Processes	Description
Familiarisation with the data	The researcher must engage themselves in, and become intimately familiar with, their data; reading and re-reading the data (and listening to audio-recorded data at least once, if relevant) and noting any original analytic clarifications.
Generate the coding	This involves generating pithy labels for important features of the data of relevance to the (broad) research question guiding the analysis. Coding is not merely a method of data reduction, it is also an analytic process, so codes capture both a semantic and conceptual reading of the data. The researcher codes every data item and ends this phase by collating all their codes and relevant data extracts.
Searching for Themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
Reviewing themes	Involves checking that the themes ‘work’ in relation to both the coded extracts and the full data-set. The researcher should reflect on whether the themes tell a convincing and compelling story about the data, and begin to define the nature of each individual theme, and the relationship between the themes. It may be necessary to collapse two themes together or to split a theme into two or more themes, or to discard the candidate themes altogether and begin again the process of theme development.
Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
Producing the report	Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Thus, this study adopted a thematic analysis in analysing the data with justifications for the use of this technique as set out by Braun and Clarke (2006). These authors specified that rigorous thematic analysis could produce trustworthy and insightful findings for the research. More importantly, though, thematic analysis enabled the researcher to make sense of a large amount

of data and to articulate themes in a readable, constructive and meaningful way. Also, the researcher used thematic analysis to organise and give meaning to the data for the intended purposes of the study.

Furthermore, the reason the researcher chose this method was that a ‘rigorous thematic approach could create an insightful analysis that answers particular research questions’ (Braun & Clarke, 2006, p. 97). In addition, this approach complemented the research questions by facilitating an exploration of the interview data from two viewpoints: first, from a data-driven viewpoint and a perspective established on coding in an inductive way; second from the research question perspective to check if the data were consistent and reliable with the research questions and providing appropriate information.

The next important consideration was identifying themes in the interview data which the researcher collected.

Table 3.14 guided the process of data analysis and the accompanying details of each stage are given below:

- Firstly, the recorded interviews were transcribed. Also, the researcher was taking notes during interviews
- These were returned to the participants to recheck the correction of the transcripts.
- To get a more in-depth understanding of all raw data that had been collected the researcher read through all the documents again.
- Coding from the relevant quotes was undertaken, and the quotes/ideas were then categorised into themes.

The different themes were then interpreted – according to the extent to which they addressed questions on knowledge sharing or on social media platforms based knowledge sharing. Then the themes and categories that emerged from the data analysis were discussed in the findings and discussion chapters that follow.

In addition, the analysis of data collected through interviews would be documented, transcribed and analysed by using NVivo software. NVivo software is a qualitative data analysis (QDA) software which is widely available and beneficial to a researcher analysing a large amount of qualitative data (Collis & Hussey, 2014). Dembowski & Hanmer-Lloyd (1995) identified the following ways in which QDA software such as NVivo can assist an interpretivist researcher.

These are: importing and storing text; coding the data; searching and retrieving text segments; stimulating interaction with the data; and relationship building within the data. This would allow the researcher to create multiple themes, group responses, categorise journal articles and map out research strategies to enable the researcher to have a better understanding of the data collected.

However, using software may have some drawbacks. For example:

- There may be difficulties in changing, moving or reluctance to change categorised information once categories have been established
- Particular programmes tend to impose specific approaches to data analysis

Despite some benefits of using computer software, the researcher decided to analyse the data manually because this allowed her to get close to the data. The researcher could cut, paste, highlight extracts of data and move it around.

3.10 Research Trustworthiness

Evaluating the accuracy of qualitative data findings is not as easy as for quantitative data where statistical tests can evaluate validity and reliability. According to Robson (2002, p. 93), validity, in a qualitative context, is about establishing trustworthiness, which concerns 'whether the findings are really about what they appear to be about' and Merriam (2009) has also pointed out that in qualitative research, validity and reliability support trustworthiness. However, numerous possible approaches and conditions can be used to enhance the trustworthiness of qualitative research findings. As Jackson (1999) states, trustworthiness refers to the process of establishing the validity and reliability of qualitative research

Trustworthiness is the related term used in qualitative research to evaluate of the quality of research (Barney & Hansen, 1994). Thus, the data and data analysis are appropriate, acceptable and trustworthy. Trustworthiness has been further divided into credibility, which corresponds to the concept of internal validity; dependability, which relates more to reliability; transferability, which is a form of external validity; and confirmability, which is related to objectivity. The researcher is aware of this argument and prefers to use the term trustworthiness as it is used by several others to cover all these elements of validity and reliability as illustrated in Table 3.15 below.

Table 3-15: Elements of validity and reliability. Adapted from Lincoln & Guba (1985)

Criteria for evaluating Quantitative Research	Alternative Criteria in Qualitative Research
Validity (Internal)	Credibility
Validity (External)	Transferability
Reliability	Dependability
Objectivity	Conformability

3.10.1 Credibility

Credibility in qualitative research is defined as the extent to which the data and data analysis are believable and trustworthy (Krefting, 1991). Credibility is analogous to internal validity, that is, how research findings match reality. However, according to philosophy, qualitative research, is qualified to mean that people construct within social contexts. Qualitative research is acceptable to the researcher due to the possibility of multiple realities. It is upon the reader to review the extent of its credibility based on an understanding of the study. Based on Lincoln and Guba (1986:18) credibility includes:

- Prolonged engagement
- Persistent observation
- Triangulation (cross-checking) of data
- Peer debriefing
- Negative case analysis
- Member checks

In this study, the researcher employed three approaches in addressing credibility:

- Prolonged engagement: The researcher’s involvement in the study in a period, which allowed the researcher to become familiar with and understand the case universities.
- Triangulation (cross-checking) of data: The researchers used this method to clarify and establish validity by analysing research questions from multiple sources in a study. In ensuring the research rigour, the researcher employed other strategies such as data triangulation. The researcher interviewed people at different levels in the HEIs (top management level academic staff to junior academic staff) and this category of data triangulation (Easterby-Smith et al., 2008). Apart from the interview, another source of

evidence such as documentation was used as a form of triangulation. It can be one of the most important ways to improve the trustworthiness of qualitative research findings.

- Peer debriefing

‘Peer Debriefing’ which according to Isaac and Michael (1995), is a strategy of engaging a ‘neutral’ outside party to raise questions and in general to explore and identify one’s approach which includes its ‘breadth and depth’, ‘strengths and weaknesses’, choice of options and implications. Peer debriefing has been achieved in dialogues and discussions with other doctoral students and academics and in many exchanges of thoughts, opinions with researcher’s supervision team. Discussions from peer debriefing are relevant as they have contributed in deepening the researcher’s understanding of the issues involved in this research.

In general, qualitative findings are not easily generalised. It is similar to the functions of external validity with the purpose of generalising (if findings are applicable to other contexts); however, qualitative research aims to present an in-depth investigation of the uniqueness of case studies

The researcher can enhance transferability by detailing the research methods, contexts, and assumptions underlying the study. Seale (1999) advocates that transferability is achieved by providing a detailed, rich description of the settings studied to provide the reader with sufficient information to be able to judge the applicability of the findings to other settings that they know (p. 45).

As this research embraces multiple case studies approach, the process of generalisation that applies matches it is from the context of the research study itself to other settings or contexts. Thus, it is a necessity that the researcher documents and justifies the methodological approach, and describes, in detail, the critical processes and procedures that have helped to construct, and connect meanings associated with those phenomena. Furthermore, in this research, the researcher cannot assure the transferability of the findings but instead can only provide appropriate evidence and information that can then be used by other scholars to determine whether the findings apply to their new situation. Therefore, transferability depends on the degree of similarity between the original condition and the unique and new situation.

3.10.2 Dependability

Dependability is analogous to reliability in quantitative studies, that is, the consistency of observing the same findings under similar circumstances. According to Merriam (1998), it refers to the extent to which research findings can be replicated (p. 205) with similar subjects in a similar context. It emphasises the importance of the researcher accounting for or describing the changing contexts and circumstances that are fundamental to the consistency of the research outcomes.

Reliability is problematic and is practically impossible as human behaviour is not static, is highly contextual and changes continuously depending on various influencing factors. It is further compounded by the possibility of multiple interpretations of reality by the study subjects; a similar study with different subjects or in a different institution with a different organisational culture and context or by a different researcher may not necessarily yield similar results. The quality of inferences also depends on the personal construction of meanings based on the individual experience of the researcher and how skilled the researcher is at (Anney, 2014) gathering the data and interpreting them. As a result of all these, reliability in the traditional sense is not practical in a qualitative case study

3.10.3 Confirmability

Confirmability describes how the results of an inquiry could be confirmed or validated by other researchers (Anney, 2014). Thus, for this research, the researcher has been validated through attending and participating in conferences. Apart from that, the researcher has discussed the findings of the study with one Professor and one Associate Professor from the MHEIs who had expertise in the area of this research. The purpose of the interviews was to validate the findings.

Apart from that, this should be used as a standard when the study has explained the research process entirely and possibly to assess whether the issue of the finding from the data. The aim is to ensure that the data is free of the researchers' interpretation. Besides, all the data collected was gathered, recorded meticulously and used systematically.

The researcher has documented all the research processes and procedures and checked up and reviewed the data repeatedly during the study to improve dependability and the conformity of study findings.

3.10.4 Saturation Point

Saturation in qualitative research is a difficult concept to define Bowen (2009), and has appear to be associated with the point in a qualitative research project when there is enough data to ensure the research questions can be answered. However, as with all parts of qualitative research, the depth of the data is often more important than the numbers (Burmeister & Aitken, 2012). A small number of rich interviews or sources, especially as part of an ethnography can have the importance of dozens of shorter interviews. According Fusch (2015):

“The easiest way to differentiate between rich and thick data is to think of rich as quality and thick as quantity. Thick data is a lot of data; rich data is many - layered, intricate, detailed, nuanced, and more. One can have a lot of thick data that is not rich; conversely, one can have rich data but not a lot of it. The trick, if you will, is to have both. (p.34)”

Therefore, the quantity of the data is only one part of the story. In this study, the researcher has engaged with it at an early level to ensure “all data has equal understanding in the analytic coding techniques. Frequency of situation of any specific incident should be ignored. Saturation involves causing all forms of types of occurrences, valuing variation over quantity”. In this study when the amount of alternative in the data is levelling off, and new perspectives and explanations are no longer coming from the data, as the result that the researcher has reached at the approaching saturation. The other consideration is when there are no new perspectives on the research question, for example according Brod, Tesler, & Christiansen, (2009) suggested constructing a ‘saturation grid’ listing the major topics or research questions against interviews or other sources, and ensuring all bases have been covered.

3.11 Ethical Approval

According to Saunders et al. (2012) ethics is concerned with moral principles and norms or standards of behaviour that guide moral choices about behaviour and relationship with others. Accordingly, the University of Salford ethical policy obligated the researcher to apply for ethical approval (Appendix 2) before the researcher commenced the field study. The researcher guaranteed participants of confidentiality and anonymity in the research presentation and informed them that their responses would be used strictly and for the sole purpose of this

research. In addition, the researcher took several actions to adhere to research ethics and codes of conduct:

- The researcher ensured all participants filled and signed the consent form before commencing with the interview, and she further assured participants that information provided were going to be used solely for academic purpose and their identity would be anonymised. They were informed of the purpose of the research before the interviews began
- The participants were asked for their approval before interview took place
- The researcher reminded the participants that if they felt uncomfortable with the questions, they could ask for clarification or refrain from answering the question or even terminate the interview process if they wished. They had the right to stop the process at any time.
- Information obtained from the interview was reconfirmed with participants and their consent was sought for contacting them after the interview with regards to the research if the need arose to clarify any issues.

During the research investigation process, participant invitation letter and participant consent forms were distributed to selected participants. The researcher ensured no harm would come to participants; their privacy was respected, and confidentiality was assured. Besides, the researcher has been candid with participants on the nature of research, her affiliation and has been transparent and understandable in communicating about this research.

3.12 The Unforgettable Moment of The Researcher Journey

The researcher experienced both joyful and perplexing moments while conducting the research. The researcher visited and contacted several universities to request permission; some universities turned down the requests with excuses of being busy and not able to commit, while some were not straightforward in replying but kept delaying the decision. However, the researcher felt so fortunate because she received thoroughly good cooperation from the researcher's university, which employed her to conduct the interviews.

At one time, scheduled interviews had to be cancelled for different reasons but were later rearranged. Apart from that, the exciting part of the journey for the researcher was the opportunity to engage with a variety of people and their behaviour, such as, one academic staff

member in one university, who thought he was better or more important than other people and acted in a way that was impolite and too conceited. Others, however, were quite humble and even too shy whilst others were too outspoken when conducting the interviews. That was the most unforgettable moment.

That said, most of the universities that accepted the conduct of research offered help by introducing the researcher to others and ensuring that she was familiar with the environment. The participants personally took the interviewer to appropriate personnel for the study, and that helped by a long way. Participants also kept open doors for verification and clearance after the interviews. Despite everything, the interviewer found this to be a most rewarding experience. The interviews experiences make the journey a worthwhile experience never to be forgotten.

3.12 Summary

This chapter has discussed the underlying research paradigm, research strategy and its implementation. The discussion began with the research philosophy followed by research methodology, research strategy and the details of data collections. The decision was taken to embrace an interpretivist philosophy and to use the case study method. Apart from that, collecting qualitative data by means of semi structured interviews in addition to relevant documentation has revealed how triangulation was achieved in this study. This chapter also has discussed in detail issues of ethical approval, description of conducting field work including the testing of interview questions as well as the main study. The next chapter discusses and presents the findings from the thematic analysis of the data.

CHAPTER 4 RESEARCH FINDINGS

4.1 Introduction

This chapter presents the empirical findings from the study the aim of which was the investigation into the influence of organisational elements that contribute to social media platform-based knowledge sharing within the context of Malaysian HEIs. To address the research aim, research questions were formulated to answer the research objectives as follows:

- To investigate the ways in which knowledge is shared among academic staff within the Malaysian HEIs.
- To examine the types of knowledge shared in social media platforms among academic staff within the Malaysian HEIs.
- To explore the influence of organisational elements that contribute to social media platforms based knowledge sharing within the Malaysian HEIs.
- To provide recommendations for managing organisational elements to improve the social media platforms based knowledge sharing within Malaysian HEIs.

The findings, therefore, are presented with reference to the aim, research objectives and research questions as stated in Chapter One. This chapter presents the findings from the analysis of the data collected from the semi-structured interviews of participants identified in the selected Malaysian HE case studies. The main source of data, as explained, was a series of semi-structured interviews (32 in total) exploring the influential organisational elements on social media platforms based knowledge sharing activities in the four universities participating in the study. The interview questions are set out in Appendix D.

The findings explain how knowledge sharing by using social media platforms can be applied as was conveyed in the case studies' data. In addition, the findings also illustrated what are the influences and how the influential organisational elements contribute to social media platforms based on knowledge sharing in Malaysian HEIs.

4.2 The Empirical Research Study Samples

In selecting the four case study universities for this research study the sampling guidance followed was based on Yin (2014) who suggested that researchers should cautiously select cases to be studied so that each case selected either, predicts similar outcomes or predicts conflicting outcomes, and for predictable analysis. As such, this study conducted an empirical investigation of four selected Malaysian HEIs: University A, University B, University C and University D representing not only a fair reflection of size and diversity as University A and University B were selected from the public sector and University C and University D selected from the private sector as summarised in Table 4.1 below.

Table 4.1: Summary Details of Selected Case Study Universities

Case Study University	Public or Private	Code	Subject Areas	Location
University A	Public	UAPu	business & management; social sciences humanities; science & technology	<u>Main Campus</u> Shah Alam <u>Satellite Campuses</u> (PuncakAlam, Selayang, Sungai Buloh, PuncakPerdana, JalanOthman)
University B**	Public	UBPu	engineering, science & technology	<u>Main Campus:</u> Iskandar Puteri, Johor <u>Branch Campus:</u> Kuala Lumpur.
University C***	Private	UCPr	IT, computer science, accounting, business management, engineering, health sciences	<u>Main Campus</u> Kuala Lumpur <u>Branch Campuses</u> Bangi, Kuantan, Kota Bhssaru, Alor Setar, Ipoh, Batu Pahat and Semporna
University D ****	Private	UDPr	Business & Management, Information Technology, Engineering, Creative Multimedia & Cinematic Arts	Cyberjaya, Bukit Beruang, Johor, Selangor, Melaka.

*Leading innovation-driven entrepreneurial and research-intensive university

** Highest-ranking research university in Malaysia.

*** Oldest and biggest private university 75 twinning universities in United States and New Zealand as a 2+2 transfer degree programme.

**** Assigned 'Excellent Status' 'Most Entrepreneurial Private University', and 5 Stars for 'Teaching, Employability, Facilities, Social Responsibility, and Inclusiveness'.

Based on the data collected and summarised in Table 4.1 the rationales behind the selected four case study Universities are twofold. Firstly, in considering the organisational structure and organisational strategic capability the selected case study universities are the largest institutions of higher learning, research and development in terms of size, student, and academic staff population. In addition to the main campuses they have satellite campuses across Malaysia.

The universities have been accorded high ratings as having innovative and entrepreneurial, teaching and research institutions from the Malaysian MOHE. In addition, they have been recognised as high in the rankings as world-class universities attracting international students from more than 100 countries, including joint ventures/twinning with universities in United States and New Zealand. Collectively, attracting the highest number of home and international students making their campuses culturally diverse and excellent case study sites.

Beside that, public institutions are considered in moderate level while in private sector in high level. Also, organisation culture touches knowledge sharing in public and private institutes in moderate level. Consequently, the faculty members should focus on vision, mission and strategies of institutional knowledge sharing if they aim to achieve benefits from the institution.

Secondly, the universities were also identified as they had been recognised for innovation and in the provision of programmes including science and technology accounting business management, engineering and health sciences. They were specifically selected as promoting world class leadership delivery of programmes in the field of information technology, computer science. in leaders in innovation and in the use of ICT. HEIs vision should include the strategy due to knowledge sharing becomes a part of higher education philosophy. Besides that, each of the faculty has different technology and culture elements have the most influence the knowledge sharing processes towards the institutions. It was initiate that IT could enhances performance in the vital areas of teaching, learning, research and administrative service based on knowledge sharing involvement in HEIs. Also, it was found that the importance given to the causes for knowledge sharing involvement differed from institution to institution depending upon the organisational structure, goals and targets, organisational responsibilities, stakeholders and the decision making influence.

Thus, collecting data from these public and private HEIs using an in-depth interview approach facilitated the collection of data collected from academic respondents selected from the four large prestigious HEIs including two selected from the private sector and two from the private sector.

4.2.1 Sample of Participant Representations

As is illustrated in Table 4.2 below a total of 32 participants were willing to participate in the research study and subsequently 32 semi-structured interviews were conducted.

Table 4-2.: Summary of Participants and their positions selected from Case Study HEIs

University	Number Management Team	Number of Senor Staff	Number of Junior Staff	Number of Participants
University A	2	3	4	9
University B	2	2	4	8
University C	2	3	3	8
University D	1	3	3	7
Sub Total	7	11	14	Final Total 32

Participants were selected for this study to investigate ways in which knowledge is shared and types of knowledge shared in social media platforms among academic staff within the Malaysian HEIs. The location and identity of the university and interviewees cannot be disclosed in accordance with the agreements made at the time of recruitment and time of interview to encourage interviewees to speak openly. As such, Table 4-3 below lists the participating case study university codes, the participants/interviewees' codes and gives a brief description of each person's position, gender, and their position in the university.

Table 4.3: List of Participants Interviewees ID Coding

PARTICIPANT ROLE CODE (MT, SS, JS) AND IDENTIFIER NUMBER	UNIVERSITY CODE (UA, UB, UC, UC) AND STATUS IDENTIFIER (Pu, Pr)	FINAL IN TEXT PARTICIPANT ID CODING
MT1	UBPu	MT1UBPu
MT2	UAPu	MT2UAPu
MT3	UAPu	MT3UAPu
MT4	UCPr	MT4UCPr
MT5	UDPr	MT5UDPr
MT6	UCPr	MT6UCPr
MT7	UBPu	MT7UBPu
SS1	UAPu	SS1UAPu
SS2	UDPr	SS2UDPr
SS3	UDPr	SS3UDPr
SS4	UCPr	SS4UCPr
SS5	UAPu	SS5UAPu
SS6	UAPu	SS6UAPu
SS7	UBPu	SS7UBPu
SS8	UBPu	SS8UBPu
SS9	UCPr	SS9UCPr
SS10	UDPr	SS10UDPr

SS11	UCPr	SS11UCPr
JS1	UDPr	JS1UCPr
JS2	UCPr	JS2UCPr
JS3	UAPu	JS3UAPu
JS4	UAPu	JS4UAPu
JS5	UBPu	JS5UBPu
JS6	UBPu	JS6UBPu
JS7	UBPu	JS7UBPu
JS8	UAPu	JS8UAPu
JS9	UDPr	JS9UDPr
JS10	UCPr	JS10UCPr
JS11	UBPu	JS11UBPu
JS12	UAPu	JS12UAPu
JS13	UDPr	JS13UDPr
JS14	UCPr	JS14UCPr

Participant Role Code (ID): MM - Management Team, SS- Senior Staff, JS – Junior Staff
University Case Study (ID) Code: UAPu, UBPu, UCPr, UDPr (Pu is Public status, Pr is Private status)

The codes are used to identify citations taken from interview transcripts. All interviews were conducted face to face. There are thirty-two participants (academic staff) involved in the interviews, and the interviewees were allocated letters according to their position in the university and ID number e.g. MT1, MT2, SS1, SS2, JS1, JS2) in order to maintain anonymity.

Importantly, participating Universities were also allocated letters for University A, B, C, D and letters representing either public (Pu) or private sector (Pr) status – UAPu and UAPr, UBPu and UBPr, UCPu and UCPr, and UDPu and UDPr, The final column in Table 4,2 above displays the combined ‘final intext participant coding identifier’ for referencing the participant source of the direct quotation selected from the data and inserted in the presentation of the findings in the following sections.

4.3 Findings from the Semi-structured Interview Data: Presentation of Themes and Sub-themes

The literature review allowed the researcher to identify themes and to inform the design and direction of the primary empirical research conducted in the main fieldwork phase of this study (Creswell, 2014). Creswell (2014) also makes us aware that there is often data collection involved in the construction of the literature review and the rigour with which this data is collected and interpreted will impact the research study. In addition, the specific themes generated from the literature review were utilised to refine the research rationale, the research questions and development of the semi-structured interview questions.

In total seven elements were identified from the literature review data collected, namely organisational strategy, organisational structure, organisational infrastructure, organisational, organisational culture, management support, people, and skills (See Table 2.6, Chapter 2). Each of these had its own set of questions (See Appendix D3).

In order to break down the data from the semi-structured interviews into meaningful patterns, thematic analysis was used (Miles, Huberman & Saldana, 2013). This involved classifying and examining data from each transcript and searching for notable themes and issues that are mentioned by multiple interviewees. The original interview transcripts were then imported into NVivo to ensure consistency and accuracy. NVivo is a qualitative data analysis software produced by QSR International. NVivo is one of a number of qualitative software packages which has been designed for qualitative researchers working with very rich text-based and multimedia information. The ‘codes’ are referred to as ‘nodes’ in NVivo. Creating nodes may enable the cataloguing of ideas and collecting of material by topic case.

In summary, by continuing to use the interpretative framework, at the empirical research phase, the data was analysed, using thematic analysis of the narratives and text against the context with careful consideration of the inclusion of the viewpoints of the participants. The process of thematic analysis that was performed yielded six specific themes with sub-themes as presented in Table 4.4 below and which are presented in the following sections and subsections.

Table 4.4: Summary of Findings of Emerging Themes and Sub-themes

Emerging Theme	Emerging Sub-theme
Academics’ Understanding of Knowledge	<ul style="list-style-type: none"> • Know-how • Fact • Expert Opinion • Value Added
Types of Knowledge Shared by the Academics	<ul style="list-style-type: none"> • Organisational knowledge • Personal Knowledge
The Current Situation of Knowledge Sharing	<ul style="list-style-type: none"> • Face- to- Face • University Platforms • Social Media Platforms
The Current Understanding and Use of Social Media Platforms	

The Influence of Organisational Elements for the Usage of Social Media Platforms for Sharing Knowledge or Information	<ul style="list-style-type: none"> • Policy • Leadership • Motivation • Reward • Networking • Training and practise
Other Influences of Organisational Elements for Social Media Platform Based Knowledge Sharing	<ul style="list-style-type: none"> • Intention to Use a Social Media Platform • Perceived enjoyment in helping each other • Interaction between academic staff • Academic Jelousy Culture

4.3. Theme: The Academics Understanding of Knowledge

4.3.1 Sub-theme: Know-how

Typically, the participants responded that they perceived knowledge as experiences where they identified knowledge in terms of experiences, skills, and thoughts in people’s minds that are then articulated.

For instance, SS2UDPr stated that,

“...skill, experience which can link to the capability for action.”

This understanding was also supported by MT4UCPr who mentioned that,

“Anything or something can be information or facts that can be gain through experience and education and to contribute for the better performance and to be a knowledgeable person”.

Moreover, based on their understanding of knowledge, it was perceived as significant and could have great impact on those who owned it. According to MT2UAPu who explained,

“Knowledge means something that we acquire, and we used to achieve the quality of life and will assist in completing our task effectively.”

It was also supported by SS8UBPu who described it as,

“...knowledge might be something insight the person who knows about it and only you how to illustrate, express and owned it. Knowledge also can be defined as high potential meaning and value on its individually.”

Almost all participants believed knowledge would create a high level of fulfilment and a high level of understanding of the individual and could produce enhanced decision making. Other

junior lecturers from University B felt that knowledge was something great and important and could provide great opportunities for the individual who owned it.

The majority of lecturers from University D agreed that knowledge and the role of knowledge was mainly to bring great honour and esteem to the person who owned it. SS10UDPr stated that,

“I think it is something that is transferable like skills and evidence. We may be able have same experience with others but who knows you will be expert and specialise in your own area if you owned specific knowledge. For me knowledge something or somewhat believed by individual itself”.

One of the senior staff from University C shared her opinion about her understanding of knowledge, as a content. SS11UCPr mentioned that,

“knowledge itself for me is learning experience, content and something new. You will got it and suppose to share and spread lively with the proper flow”.

Although there is some inconsistency of views with respect to what the new knowledge meant for participants, the researcher found a more common understanding when it came to the personal implications of what they understood knowledge to be, where knowledge would enable someone to be an expert and knowledgeable, and how it would affect their work. The following statement by MT2UAPu specified that,

“knowledge is a touch or something that can make you as a better person, in term of the way we are thinking or doing thing. Knowledge can make us expert in our own area or can inspired of what is to come”.

However, it can be expected that somehow knowledge could bring someone to become excessive when they owned it. Knowledge might be something based on the actor's belief or trust. Trust is based on a common understanding and could be acceptance from each other.

4.3.2 Fact

With regards to the emerging idea of fact, some of the participants mentioned that knowledge could be somewhat factual, and of considerable value for the individual who had it. One of the senior staff SS8UBPu mentioned that,

“as for me can be as processed information based on facts and life experiences. Furthermore, people may gain more knowledge if they understand it and thought it”. (SS8UBPu).

In an interview with senior staff from University A, the researcher received the following response on the question about their understanding of knowledge:

“my own personal understanding of knowledge something that we know through reading or from our own experience in life. It should be above the standard of skills or trust. It should match with the individuals itself”. (SS5UAPu).

When JS14UCPr was interviewed for the same question, she stated that they:

“expected knowledge more than intelligence that can enhance thinking skills and expand the experience, but not only high thinking skills it can be intangible understanding meaningful and to be able to influence another individual to create new knowledge” (JS14UCPr)

And another staff member with a management position, (MT4UCPr) specified:

“stated that knowledge could be a piece of evidence or fact and something that makes us make good decision making. It can be an experience, proficiency or practice and can complete the individual to become an important person and well-informed”. (MT4UCPr)

The researcher noticed that most of the academic staff stated that knowledge was fact, experience, and skills, that might influence an individual’s life and enhance their position. This knowledge is meaningful and significant for it helps someone to perform their work and this knowledge should need to be up-to-date due to the fast current changing in academic environment.

4.3.3 Expert Opinion

The participants started to describe the knowledge expressed as expert opinion, as skill, feelings, experience, and thoughts which fit together; that is, there have to become mixed feelings. As MT2UAPu, stated that:

“knowledge is something that makes us to be a better person, something expert, mixed with the feeling in order to converse it”. And also the knowledge and skills should match together to make the individual become a better person and knowledgeable. (MT2UAPu)

SS2UDPr and SS3UDPr from University UDPr agreed that knowledge somehow implied a tactful approach to ideas and thoughts such as the individual of the knowledge felt happy and blessed with the knowledge that they owned. SS2DPr specified that,

“Knowledge is something that we know and got through reading or from our own experience in life. When we owned that knowledge it appeared the feeling such as happy, great, and you would like to share with other people” (SS2DPr).

JS8UAPu stated that,

“I am looking for something new that can satisfy and bring benefit for me to make me for being better person. When you have knowledge, it can prepare you to be better person. I can say knowledge is something pure, discovering something new, abilities and precious. It is store in your mind such as memory” (JS8UAPu).

4.3.4 Value Added

Along with most participants, some believed that knowledge might be beneficial for the person who owned it and seen as a valuable asset. Most of the knowledge they owned would change an individual enabling them to become someone more useful and contributing to performance improvement and providing better opportunities related to their work.

Knowledge can be described as value added as SS3UDPr mentioned that:

“Knowledge is to a certain extent when you acquire it, which will give you added value on certain matter. Knowledge is when you gain something that will give you added value to yourself and help you understand and do things better.” (SS3UDPr).

Next SS5UAPu from University A also shared the same view that knowledge can be described as a value. She indicated that,

“...something that can give beneficial idea, skills to others people. Knowledge also can generate more value or income. Knowledge is something valuable. When you an expert, many people will refer to you and from there you can organize seminar in order to share your knowledge. And it certainly not frees to share something valuable”. (SS3UDPr)

4.4 Types of knowledge shared by the academicians

4.4.1 Organisational knowledge

Questions were asked regarding types of knowledge that they shared. Some of the senior lecturers in University D stated that mostly they shared was academic knowledge. Academic knowledge such as lecturer notes, was gleaned from experience in conducting online courses, skills in publishing paper for high impact journals.

As SS10UDPr stated that,

“Normally in my organisation, we are encouraged to share knowledge within our capacity of mastery. As a lecturer of Quantitative Science Department, I often share knowledge of current IT tools or technology that may be of help to other lecturers in their everyday preparation in teaching and learning” (SS10UDPr)

SS7UBPu said that,

“On the basis of my experience, I will share knowledge such as my teaching experience, skills and knowledge regarding to my expertise. I do really love to share my knowledge. It will bring satisfy to me and I am proudly to be an academician as I can share my experience and knowledge with my students”. (SS7UBPu)

Added to above, formal knowledge would enable the other individual to understand the subject and by interpretation or understanding it the person would be enabled to believe in themselves with greater self-confidence in relation to what they have and owned.

According to MT7UBPu,

“As for me, there’s three different type of knowledge sharing that I shared mostly. Which is research knowledge, knowledge on mobility and anything that involve with international students as our institutions dealing with International students”. (MT7UBPu).

The researcher tried to discover more on the “notion of ‘mobility’ of knowledge expressed by MT17UBPu previously and asked the participant to expand on this topic further. MT7UBPu answered stating:

“Well mobility knowledge is knowledge free access. You can get it free and anywhere you can. For instance, from Internet. It easily for you to get and access knowledge through it. As currently, mostly people using Facebook or YouTube.” (MT7UBPu).

Another senior staff member in the same institutions claimed that,

“Other than the subjects that I taught such as administration, management, human resource management, business. I also share knowledge by some technical videos. Actually, I have my own blog. I will give my student blog link and they can access it. In the blog, normally I upload some technical videos about subject that I teaches”. (SS7UBPu).

The researcher had the chance to access the teaching portfolio files and tried to find evidence of experiences and skills of their expertise and areas of competence and it was well organised. Mostly, these academic staff updated their teaching portfolio on a regular basis. The teaching portfolio consists of their CV, teaching module and some of their contributions within their

areas of expertise for example achievement awards, consultancy and list of articles that have been published.

In an interview with JS2UCPr on knowledge he shared, the researcher received the following response:

“As for me I do share my knowledge on drawing and sketching for design subjects, and my student will learn from it. I share on how to produce great piece of artworks as I am working in fashion line”. My student certainly will learn from it and I will evaluate them based from their works. Mostly, I shared teaching and learning knowledge. (JS2UCPr).

The researcher noticed that mainly the academic staff shared learning and teaching knowledge as that was their main task.

4.4.2 Personal Knowledge

Participants were asked what type of knowledge they usually shared. Mostly the interviewees answered that they shared general knowledge, personal and informal and formal knowledge. However, they usually shared informal knowledge through either a formal or informal channel such as social media platforms. As SS5UAPu said,

“Other than the subjects that I taught such as Communication, administration, management, human resource management, business, company secretary practice many more. I also share knowledge on how to get on with our life. How a Muslim should lead their lives, how to be a successful people and must always remember death. Life is not as beautiful as it may seem, it is not rainbows and bed of roses. It is a journey more like crossing the ocean, they will encounter storm, typhoon, haze, fog, soft current, hard current for instances before arriving at the other side of the ocean. So, they have to brace themselves and never give because life is a journey and the journey is how they sail their boat. What their lives will be depends on how they perceive the situation and act on it”. All those knowledge I will share with my friends by using my Facebook account.” (JS2UCPr).

As SS10UDPr said that:

“I like to cook. So, mostly I share cooking recipes, cooking tips and also knowledge about travelling” (SS10UDPr).

The researcher noticed that mostly academic staff shared their informal knowledge compared to formal knowledge as JS10UCPr alluded to the notion stating:

“Well type of knowledge I shared mostly such as success story, academia life, job information, personal branding information, part time job information, publication information, teaching daily life story” (JS10UCPr).

Added to the above, SS11UCPr said,

“Normally, due to my heavy workload and to stress it out I really love to share my personal knowledge such as parenthood knowledge with my friends compare to my academic knowledge...It certainly make me feel happy. Sometimes those academic knowledge make me stressful. Most people will envy with knowledge that you have. They will compare each other. Those make me awkward to share that knowledge. As I am mother to two lovely girls, better I shared knowledge such as parenthood with others. (JS10UCPr).

Taken altogether, the researcher found that it was difficult for participants to share their individual and personal knowledge. On some occasions they could not rely on their own knowledge that they would like to share. On some occasions they were apprehensive about sharing their own knowledge and were reluctant to do so. At the other times, because of an academic jealousy culture some felt impeded in sharing their own research knowledge among other staff. Mostly, academic staff preferred to share informal knowledge more compared to formal. In addition, to share their own knowledge could be influential to others in order to appear to work like they do.

4.5 The Current Situation of Knowledge Sharing

Each academic staff played an important role in understanding the current situation of knowledge sharing in the university and helped to highlight the different levels of engagement regarding knowledge sharing in their HEI. The fact that not all HEI staff actively participated in knowledge sharing with the same intensity as their colleagues clarifies the challenges that the HEIs face in continuing to implement an effective knowledge sharing strategy that will inspire all to engage. The situations for sharing knowledge were explored through questions such as: how do you share your knowledge? Specifically, the participants explained that they mostly shared knowledge through face to face interactions, university platforms and mostly by using social media platforms.

4.5.1 Face- to- Face Encounters

As mentioned, mostly academicians prefer to share knowledge through face to face encounters. This way could be formal and informal. According to MT4UCPr,

“I shared knowledge through activities, meetings, appointments, conferences, seminars and even through communication” (MT4UCPr).

Similarly, SS11UCPr mentioned,

“Normally, I do prefer for face to face. I will call them or they will come and see me and we will exchange views and opinions” (SS11UCPr).

All participants acknowledged that they were more comfortable sharing knowledge with somebody with whom they have developed a relationship.

However, there was not a consensus on whether a meaningful relationship, worthy of knowledge sharing, could be built and maintained solely through face-to-face encounters. In connection with this, the researcher had permission to access (Document 6a listed in Appendix E) which indicates that the following programmes were carried out related to knowledge sharing sessions:

- A Journey to United Kingdom for Sabbatical Research by XX
- Knowledge Sharing session of presenting conference paper by XX
- Master Symposium by Post Doctorate Committee
- Cyber Security Outreach Visit Sharing Session
- The usage of Social Media for Academic Staff and students by XX

SS3UDPr who has been with University D for approximately fifteen years said she has to meet the person face-to-face before she feels comfortable enough to share knowledge. Multiple people said once a face-to-face meeting has taken place and that a relationship has begun to form it can be maintained and even strengthened over IT platforms. JS9 who joined the University D about four years summed it up by saying:

“The more you know a person the more you share, however you might be sharing your knowledge with the same person when he or she are in your social media list of members or followers” (SS3UDPr).

According to the interviews conducted with most of the participants, the researcher noted how they had expressed that in order to share their knowledge with another person, a relationship must first be established between them. A participant took it one step further and pointed out that not only is the amount of knowledge sharing affected by the type of knowledge or the relationship but was also dependent upon the strength and quality of the relationship. MT4UCPr with seventeen plus years' experience advised that the communication methods and knowledge sharing methods that he used were based on the type of relationship he had with a person. In some cases, he might pick up the phone, he might send an email message or he might get up out of his chair and physically approach the person. In some cases, he even travelled by airplane to either maintain an important relationship, to repair a relationship or to form a new relationship.

MT7UBPu who has been working at the workplace for 20 years plus years said:

"I may be more old school. If I don't know the person and haven't met them, then I'm a little more hesitant on what knowledge and information I will share. The more you know a person the more you share, however you might be share your knowledge with the same person when he or she are in your social media list of members or followers" (MT17UBPU).

4.5.2 University Technology Platforms

Some of the participants mentioned that their University provided specific technology platforms to share knowledge besides email or formal channels. In University A the new platform set by the top management was called ILearn and was expected to help establish a 'culture for sharing'. These platforms were developed only for academic staff to share their teaching and learning methods with the students in the university (Document 8a, listed in Appendix E). Furthermore, when the university created these technology platforms this was for the convenience of the academic staff and students to access and to make connections with the lecturer without facing any boundaries. This was meant to be achieved through simplifying the work of searching and finding, saving and archiving, communicating and sharing documents and knowledge. It was stated by MT2UAPu, the Head of ILearn that University A aimed at improving work processes in terms of both quality and productivity to all academic staff.

"Collaboration and knowledge sharing across the University is essential if we are to succeed in reaching our goals. It is important that we become a whole organisation where we learn from both our mistakes and successes as there were no such things to

be perfect academic staff to contribute our knowledge to our students and colleagues”
(MT2UAPu)

It is clear from the interviewees comments that the top management in University A was paying significant attention to the new technology platform considering that it was as much about establishing a new culture of sharing as for updating the university communication channels. This was further highlighted in their University Manual (reference Document 14a, listed in Appendix E)

SS6UAPu as one of academic staff interviewees at University A described,

“That platform can ease us as academic staff published materials that related to our area of study or teaching, share the knowledge on academic and educational knowledge that are interesting to others and that we can learn from each other, both what we have done well and also what went wrong” (SS6UAPu).

These comprehensive activities are also evidenced in the documentation of academic staff teaching portfolio and University INQKA Manual and Guidelines developed by the University A (reference Document 14a, listed in Appendix E)

4.6 Social Media Platforms

4.6.1 Current Understanding and Use of Social Media Platforms

One of the interview questions was related to social media platforms and phrased as follows: Are you using social media platform? Responding to this question, the majority of participants indicated ‘yes’, that they were using social media platforms. MT5UDPr, MT6UCPr, SS3UDPr and SS8UBPu said that social media platforms had made a great impact and could change their routine work to become more efficient and effective. Specifically, they used social media platforms as a prompt to assist them with their work schedules, for ease of communication and for coordination of team working with each other. MT5UDPr stated that:

“These days it is inevitable to use social media platform. I use it both for personal and purpose. For example, I’m an admin for a WhatsApp group for all students in our faculty. That group is a medium for sharing information regarding courses, events, examinations, as well as informative articles and facts beneficial for their studies. I also manage university social media Facebook account, which serves the same purpose. But the Facebook page caters for wider target group because it includes alumni of the college as well” (MT5UDPr).

Put differently, a participant from same University C identified,

“Yes I did. Social media platform benefits me for my work and personal purpose. For works, there are a group WhatsApp that created only for work purpose and also personal groups for personal purposes. This is a fastest way how the information can be shared among us. Other than WhatsApp, Facebook has been used actively. The assignment and task is initiated by exchanging ideas through social media platforms”. (MT6UCPr)

A participant from University D added that:

“Occasionally my team will exchange our perspective and feedbacks through social media platforms on the basis of our skills and experience for effective work completion” (SS3UDPr).

In addition, participant SS8 from University B also commented that:

Yes, social media platforms enable me, create and write my opinions, views and beliefs and post it such as I am using MS Word and can upload them at once. When it is completed I can upload it to my social media account so that my friend can access it”. (SS8UBPu).

Progressing to responses to the interview question on “Do you think social media platforms are one of the best platforms for sharing knowledge?” Firstly, according to JS9UDPr:

“With the current advancement by social media such as Facebook, we can rely on “Live Streaming” to transfer and sharing knowledge. For example, eClass for personal development or coaching by my mentor, XX who is University A alumni who had recently embarked coaching session through Facebook. For instance, viewers can ask live question by sending comments and potentially to receive answer within minutes” (JS9UDPr).

Another participant, when asked the question, SS8UBPu said,

“As for me yes, because everybody uses social media nowadays. It is a real platform to share almost everything, like open access classroom with unlimited recourses, regardless right or wrong” (SS8UBPu).

Other responses to this question included the response from JS3UAPu who stated that,

“Through social media platforms, every member is enabled to provide his or her opinion depending their experience. For instance, we have discussion about certain subject such as management information system subject; we have to come up with systematic idea and framework on the subject. Therefore, through social media platforms we could discuss about the subject based on our experience accordingly at once and immediately we can get the feedback” (JS3UAPu).

To understand how social media platforms could facilitate knowledge sharing, the researcher received more responses on ways to improve how to share knowledge by using social media platforms.

Talking about this issue on ways to improve how to share knowledge by using social media platforms MT2UAPu believed that,

“Yes, in our university, we actively use social media as a tool to communicate with other staff and students. We frequently update our information and sometimes we share our experiences by using social media platforms. We do use Facebook as one of social media tools. For example, we create one group in Facebook account and in the group, we discuss in order how to handle complaint that we got from our academic staff. Complaint might be about promotion, lecturer behaviour. From there we will use our experiences and skills in how to handle those complaints” (MT2UAPu).

Together these responses provide important insights that social media platforms are well known and popular in current situation for sharing knowledge. It is believed that social media platforms can enhance people beliefs, thought and the way they communicate. Social media platforms can assist in sharing via video, text and figures. It can be one of several tools to address the projects or tasks that they had been given. SS5UAPu response to this was,

“Yes, definitely. Especially because social media is highly accessed by most people these days. Hence any information shared via social media reaches any target audience easier and faster” (SS5UAPu).

Furthermore, this was confirmed by a document from University A and University D (reference Document 4a and Document 3d, listed in Appendix E)

JS3UAPu also was of the view that social media platforms could improve the university performance as the academic staff incorporated it into their ways of operating. In this context, he said

“...through the social media platforms, I am able to interact with students and friends and sharing information and knowledge from social media friends and networks. Besides I can receive joy, motivation, and pleasure from meeting new and exciting people, developing real lasting relationships, sharing news, sharing information and sharing knowledge on important events like health talks and conferences, learning more about each other, about behaviours the list goes on and on” (JS3UAPu).

The participants agreed on the importance of skills and abilities that are built from the practices and experiences in the use of social media platforms for knowledge sharing over time. In

addition, social media platforms could be a source that might lead to increased confidence. It could be used as an effective method to develop and maintain good communication for sharing knowledge.

The idea that social media platforms could also be used as the tools for keeping a consistent and regular communication was described by SS5UAPu stating:

“I have seen many individuals use social media to share and exchange files through WhatsApp, through Facebook, Twitter. The files include reports and tutorial. Seeing others use social media for sharing knowledge influence me to use it. So, I imitate others to achieve what I want” (SS5UAPu).

Besides that, JS10UCPr also had a similar opinion regarding which of the social media platforms could be constant and reliable platforms. He confirmed that:

“As for me, I think it was mostly by observing how it worked for people who are more successful than me, who had more experience in using social media” (JS10UCPr).

4.7 The Influence of Organisational Elements for the Academic Staff Usage of Social Media Platforms for Sharing Knowledge or Information

4.7.1 Policy

Participant SS2UDPr stated that, the university management team positively supported their staff to use social media platforms as tools for sharing knowledge or information stating that:

“Indeed, with proper planning of creating policy and guideline can better ensure the extent of knowledge to be shared, and definitely the right application selection can ensure the successful rate of knowledge shared” (SS2UDPr).

In addition, JS14UCPr expressed the view that the resources and policy by the management university at her university were sufficient and adequate. The participant stated that,

“...with proper guideline and policy, it can better be executed. So far it has already been implemented and proven effective. For example, in our university we must attended on social media training for teaching. Which from my opinion would encourage more staff to use social media platforms. Besides that, proper planning of creating policy and guideline can better ensure the extent of knowledge to be shared, and definitely the right application selection can ensure the successful rate of knowledge shared” (JS14UCPr).

However, JS6UBPu stated that in the university they did not have any guidelines or policy on using social media platforms since the management changed at the University and faculty level. Surprisingly, another academic staff admitted agreed that the University did not have any policies and guidelines on it SS7UBPu stating,

“...not in directly. In my university do not in any policies of any guidelines for using social media platforms. In fact, we can used YouTube of Facebook after working hours which is 6.00pm and above” (SS7UBPu).

MT7UBPu explained that in University B, it was still engaged in adopting social media platforms. The participant said he and his team convinced the management team that,

“When we justified to our top management about the advantage of social media for university, however convincing them went slowly. It was a possibility starting social media platforms, as management asked about the negative comments and how to handle it. But we explained them, let’s start it as a positive thing, we can share a lot with our staff or other stakeholders. We could start with implement one policy for using social media. We explained to the top management the importance of social media and after looking the advantages of social media, the top management gave us the support and we went on slowly to proceed with social media for sharing information about our University” (MT7UBPu).

4.7.2 Leadership

Particularly, as the particular case study universities said that leadership or top management support was one of the important elements that influenced social media platforms usage in their universities. The next section discusses the importance of leadership support and its influence on the use of social media platforms.

As JS11UBPu mentioned,

“They are not afraid to engage. Everybody is very social media understanding here; we have a very open climate. Our management are into young and up-to-date with technologies. They love to try new, dynamic technologies and try to use it in a more innovative way. Sometimes our management reply in one of my social media accounts regarding my work. Or they sometimes shared sometimes knowledge” (JS11UBPu).

Similarly, JS10UCPr agreed that the University management highlighted various actions that had been taken to manage social media accounts. The management team took many actions to ensure that staff members could utilise social media platforms for teaching and learning programmes, for instances, University C had a social media account to support their communication with students, staff and other stakeholders. This was supported by (Document

9c, listed in Appendix E). The participant added that by using social media this could be one of the communication channels in the University.

SS11UCPr added more information stating,

“I think our university management team is very innovative, want to try new technologies in the first hand. Even though there is a perception that social media becomes a complaint channel, still we want to use it because the benefits overweighs the negative aspects of it and would bring good impact for University for example up-to-date information and news” (SS11UCPr).

Also, one of the management staff in University A agreed that with social media platforms they could promote anything on activities and share any instructions regarding their University. As MT3UAPu said,

“The trend now is social media; people prefer organisations to have Facebook pages so that they can get information, evaluate the outcomes, services through the information they receive from social media sites, which drives us to use the technology in order to be leading university” (MT3UAPu).

4.7.3 Motivation

Another concern that was expressed was that of motivation. Participations stressed that the attention on motivation should be given by the management at the Universities to encourage academic staff to share knowledge. When the management provided support and motivated academic staff, they could develop and provide enhanced performance for the University. In addition, as part of their task as academic staff in teaching and learning, they could find better delivery methods and improve their performance to enhance the University’s reputation. For example, collaboration in research and development, consultations with other universities or institutions, production and publication of articles could all contribute to raising the reputation of the university as a centre of development in many fields of knowledge. As the participant SS5UAPu mentioned that,

.... indeed, from my observation as this university staff, yes, they actively motivates the staff for share their knowledge. Besides that, management university never restricted the staff to share knowledge or use social media in the University” (SS5UAPu).

JS10UCPr further explained that,

“In this University even, the top management of university and officers of vice chancellor using Facebook to share knowledge. I strongly said that when the top management itself used social media thus other staff get it as the motivation to share our own knowledge. As for knowledge should be share, why must you own by yourself...” (JS10UCPr).

JS10UCPr one of academic staff in University C also cited evidence of actively using social media platforms and further evidence from the social media platforms account (reference 9c, listed in Appendix E).

Put differently, JS14UCPr stated that,

“The process and line of operations are set by the university administration not really motivated academic staff to share knowledge. Sometimes they more focus on student learning compare to academic staff performance” (JS14UCPr).

It was further learned from a participant from University D that the use of social media platforms by university staff besides those at the strategic level involved obtaining official consent. A proposed plan was expected to be presented to the University management through the appropriate channel. The relevant committee of the senate studied the proposal before decisions were made. Positive outcomes were communicated regarding the system and the new arrangement or process, and in some situations, training was provided for the use of social media platforms for knowledge sharing. Participant MT5UDPr from University D also mentioned,

“If it is introduced properly to academic staff, it will use it. I think things fail because they are not introduced properly, and the management team should encourage the staff to use social media platforms” (MT5UDPr).

4.7.4 Reward

The giving of or bestowing of rewards have been identified as key for effective knowledge sharing in any organisations including in HEIs. This was confirmed as the one of the participants stated that working in any organisation, there was an expectation of being recognised and rewarded because of sharing their expertise with others. Furthermore, the participant mentioned that a reward could include recognition and incentives such monetary reward. The participant added that reward could be recommended as an incentive to facilitate knowledge sharing and to help build a supportive environment among staff and that rewarding

was seen as a good way to motivate staff to change their current practices. SS11UCPr believed that when contributing and sharing more knowledge and expertise could offer greater reward and easier promotion. In describing their idea of reward SS11UCPr stated,

“I believe it when share more expertise such as in publications or actively share knowledge from any medium for knowledge sharing which would secures my job and gaining financial rewarding. It may bring me promotion opportunities” (SS11UCPr).

Besides that, MT2UAPu from University A mentioned that,

“In my university, if we actively participate with publications, create new modules, the staff will be rewarded monetary reward and recognitions. The award called Excellence Award. Who has been awarded this award could get Ringgit Malaysia One Thousand” (MT2UAPu).

According to JS5UBPu from University B, also agreed that the use of recognitions reward is organised and rewarded by university administration and should be implemented more than once in every year in order to motivate the staff to work more productively in order to accomplish university goals. Furthermore, SS7UBPu also in University D stated,

“... recognition is needed and is another way to establish the credibility and expert status of academic staff. It is importance of having contributions recognised by our top management and receiving credit for any ideas they share in the university” (SS7UBPu).

Similarly, MT7UBPu presented a close explanation but clearly identified the differences in terms of use of recognition rather than rewards remarking,

“It is very nice to do favours for people. If you help them, then they’ll help you. That could be reward for me. Responsiveness on sharing like a ‘thank you’ or ‘great this is a good opportunity for us to do this or that’ is very important and will encourage me to share. It will make it worthwhile to share knowledge. I don’t think getting paid to share information will be effective. I think that’s not the way of doing it. However, in current situation nothing is free and easy. As we share our knowledge we must be well known and be reward. Maybe the university could change into recognition in term of reward” (MT7UBPu).

JS5UBPu added more responses on the topic of rewards stating that,

“I hope that the university should give me reward when I performed in my academic career. I hoped I can gain social reward such as status and recognition” (JS5UBPu).

In all the universities, reward has been implemented to encourage staff to enhance their performance in alignment with the goals and mission of university. These responses explain that many rewards and recognition of managerial support that emerged were related to basic issues that brought benefits to encourage adoption among staff.

4.7.5 Networking

Responses to the interview question ‘how do the networking infrastructures in the university support the knowledge sharing on social media platforms?’ revealed that it was practiced in all of the case study universities but that it should be upgraded to improve current promptness and should focus on the security of the university network. The employment of networking in and among the organisations, and the ability of staff for using networking must be considered for sharing knowledge. The technological hardware must be applicable because the efficacy of networking must be functioning and smooth.

SS10UDPr mentioned that in University D,

“...there are problems, normally related to the speed and the maintenance issues. The university should upgrade the systems and always maintained the networking” (SS10UDPr).

However, JS2UCPr mentioned,

“In my university the management provide good and clear connection of wireless. Even we have free wireless” (JS2UCPr).

Academic staff however emphasised that having a good blend of networking supported the process of technology infrastructure in the university. Technology infrastructure and networking were dependent on one another.

4.7.6 Training and practise

Another element that participants highlighted was the implementation and application of using social media platforms and circumstances was around the element of training and the use of social media platforms. The researcher concluded that in general, academic staff were satisfied

with the information that was provided ahead of using social media platforms in university, however several academic staff considered social media platforms which were used for sharing documents and collaborating on Facebook and Twitter, for example, as a complicated tool, and that its 'endless' functionalities had led to frustration among some academic staff.

All case study universities provided some form of training to staff following the implementation of a specifically designed training calendar, although some training is organised outside the calendar. However, the emphasis given to human development differs between universities. Training in some universities was considered as part of their operations. By this, participants explained that training was a routine because guiding and instructing them and other members of the organisation, was a standard and established practice linked to the operation of the university and the means through which the university, improved and developed its members.

Most of the academic staff agreed that the University should provide them with training on social media platforms applications and operations. One of the participants said that he had attended training only once and that he was unable to attend more training sessions on what social media platforms can offer for academic staff due to time constraints.

MT2UAPu added that, in University A, the institution provided training on social media platforms which was confirmed in the university documentation (reference Document 14a listed in Appendix E) which indicated training for social media platforms had been organised by the institution. MT2UAPu as Head of Social Media in University A indicated that he had attended training on how to organise the platform and training in regard to utilisation and the benefit of social media platforms for understanding both respectively. This was confirmed by an entry in Document 9a (listed in Appendix E) and referred to in Document 16a (listed in Appendix E) which provided as a supportive factual statement for further clarification. According to MT2UAPu,

"I have been appointed as Head of Social Media in this University for almost 2 years. Before this, the social media has been managed by Quality Department however, our Vice Chancellor asked to have social media platforms as one unit. Easy to handle all information came in and out. Besides that, I have been sent for training on how to familiarise with social media platforms. It is not easy to promote and encourage people or our staff to use social media platforms as some of our staff such as Senior Lecturer do not happy to use social media platforms for sharing knowledge or information. As for me, to motivate them to use social media training must be one of priority first to

support them. Therefore, as me as Head of Department sometimes would be able provide training for all our staff in this university” (MT2UAPu).

Similarly, it was supported by SS5UAPu from University A stating that,

The training department called ILQAM organises inhouse trainings on social media according to the need of members. These trainings are usually carried out at the ILQAM unit, utilising both internal and external expertise” (SS5UAPu).

Meanwhile, SS9UCPr from University C stated that his University provided training for staff on social media platforms as the current environment needed and required academic staff to use social media platforms to update their teaching and learning, to share information with their students and that it could be the fastest platform for sharing all kinds of information. However, one participant in the same University said that they had only attended training on social media platforms once due to workload and time constraint.

There is also a document (Document 9c and 7c, listed in Appendix) which supported the claim that University C organised two kinds of trainings on social media platforms: (1) Social Media development: this is up-to-date (it was jointly done with trainings provided for administrative and academic staff), with the aim of developing and approaching for using social media platforms. (2) Admin/clerical staff training: this training is organised for the administrative that managed University social media account. In supporting the report findings, MT6UCPr stated that:

“... staff goes through training on social media, while we the old ones have refresher courses. As you get acquainted with the system, you get the opportunity to attend more training depending on your element and immerse with social media to use it” (MT6UCPr).

In contrast, SS4UCPr said that he had attended that training several times and he had a good understanding concerning issues on social media matters. Meanwhile, Document 6c (listed in Appendix E) revealed that University C’s staff would be trained to ensure that they were competent to deliver their jobs.

In regard to the of training, the University should provide more training on social media platforms and new rules should be imposed that required academic staff to partake in that training at least for two sessions to perform on social media platforms or information technology training.

4.8 Other Influences of Organisational Elements for Social Media Platform Based Knowledge Sharing

In addition to ‘The Influences of Organisational Elements’ that have been presented in the previous section ‘Other Influences Organisational Elements for Social Media Platform Based Knowledge Sharing’ were identified as new findings from the data analysis process. The findings including participants responses are presented as in the following sections.

4.8.1 Intention to Use a Social Media Platform

Academic staff in University A, University B, University C and University D identified that the intention to use social media platforms was related to academic staff increasing interest in the value of using social media platforms for sharing knowledge. Moreover, academic staff may receive encouragement from colleagues to use social media to share experience, ideas, and knowledge, and to display their research by sharing it with others.

As SS1UAPu stated that:

“I think institutions and departments have become increasingly aware of the power of social media to reach people. Thinking about your impact and how far your work can go... So, we were encouraged to use it” (SS1UAPu).

Academic staff member from University B mentioned that he used social media platform because he would want to be recognised for his work and research. He said that:

“Numerous of my colleagues, whether they are members of the professorial staff or other researchers, whether post-doctoral or doctoral level, they said that to me “You simply must have to use social media too. If you have research it must be on Twitter because you are your research, your research is you. You must be over-identified with the practice. You must be overidentified with your work, which means you must use social media as your public” (JS1UBPY).

JS10UCPr from University C confirmed that:

“Last year during my master’s degree, a course organiser was emphasising us and said “social media this is very important. Be visible, use it, try use LinkedIn. Get some valuable connections so then you can cooperate with people, share your knowledge in social media” (JS10UCPr).

In line with this theme, academic staff from University D explained that lecturers were requested to have use of social media platforms for teaching and for research and development. However, not all academic staff in University D were enthusiastic to utilise it. Indication of the request by University D is confirmed by Document 3d (listed in Appendix E) which indicated that social media platforms that could be one of methods for medium communication in HEIs.

Another participant JS13UDPr mentioned that she used social media platforms to assist her communication with friends and colleagues.

“These days it is inevitable to use social media platform. I use it both for personal and professional purpose. For example, I’m an admin for a WhatsApp group for all students in our faculty and academic group. That group is a medium for sharing information and knowledge regarding courses, events, examinations, as well as informative articles and facts beneficial for their studies. I also manage a Facebook page, which serves the same purpose. But the Facebook page caters for wider target group because it includes alumni of the college as well” (JS13UDPr).

Yet another participant SS2UDPr from University D emphasised that,

“” Through social media enables me, as the user, to write my thoughts and post the writing as documents or file in a word and upload them. When the files are completed, I can upload them to the social media group site so that every group member can access it easily. They as well could reply it instantly and provide their own feedbacks” (SS2UDPr).

Similarly, participant SS3UDPr elaborated on the way social media could assist in the sharing of figures related to the assignment by distributing it to the group members and agreeing to upload the relevant file or figure. She explained that,

“During the discussion using social media, I could send sample figures to my group members or colleagues for their feedback. For example, as lecturer in engineering Specifically, in our assignment for usability engineering, three models were relevant and all three had its own distinct figure. Every one of my group members gave their opinion about them until an agreement was reached and eventually, the agreed figure was included in the file” (SS3UDPr).

4.8.2 Enjoyment in helping each other

The element which emerged entitled ‘perceived enjoyment for sharing knowledge’ is reflected by the participants’ view that the use of social media platforms was relevant for helping each other. At University A, MT2UAPr believed that social media platforms could be important methods for communication with colleagues. In this context he said that:

“I think it is good from the point of view of the university having a social reach that it might not have had before. So, it would be interesting to see if the university does continue to encourage us to use it. I think they probably will, and that will certainly encourage me to keep doing it. I am not sure I could use it much more than I do at the moment. Besides that social media platform benefits me for my work and personal purpose. For works, there are a group WhatsApp that created only for work purpose and personal groups for personal purposes. This is a fastest way how the information can be shared among us. Other than WhatsApp, email and Facebook has been used actively and I enjoyed helping them with my knowledge” (M2UAPU).

The encouragement to use of social media platforms in the university could become part of the university custom and practice and not questioned because they had little or no adverse effects on the system and they facilitated university administration easily than the formalised structures. MT1UBPu explained that social media platforms were easily accessed and should be considered as advantages for university in dealing with another university but that was not the case. This the respondent emphasised that,

“...At the end of the day we look at social media can assist to verify whether the goal will still be achieved and for us sometimes it's not the means that determines the end, so people use on ground to justify their stands. Thus, serving the purpose and we incorporate and encourage it even though we desire and want to have the ideal but it's giving us results, so most times people learn through it” (MT1UAPu).

4.8.3 Interaction between academic staff

Regarding the interaction between academic staff, social media platforms are identified as one of media for communication within the institutions. It could be influential for academic staff to share knowledge using social media platforms as noted by the JS14UCPr commenting that:

...with social media platforms is not only for sharing but mainly to serve lot of people with the help of technology... .Social media helps to understand the individual and university well... social media helped a lot in interaction with my friends. In some cases, social media helps to provide to tackle to friends who quite shy directly, such as, interact with them via Facebook without face to face, social media helps to direct the with my friends” (JS14UCPr).

Meanwhile, SS4UCPr said that:

“When using social media, I can keep interact and chat with my colleagues where could bring more benefit on me. I have created closed group in Facebook. In the group, we discussed about how to publish paper and writing up good proposal, perhaps we discussed about updated our teaching syllabus” (SS4UCPr).

It is worthwhile adding that one participant mentioned in University B, The Vice Chancellor, mentioned and reminded staff to share knowledge using social media platform where possible as it could increase the performance of university. In relation to this regard, SS10UDPr shared,

“...social media offers easy access to each group member and others when knowledge is exchanged” (SS10UDPr).

4.8.4 Academic Jealousy Culture

One participant from University A mentioned the existence of an academic jealousy culture in the HEI which could be influential element in discouraging knowledge sharing on social media. This is because most academic staff on some occasions were reluctant or felt impeded in sharing their knowledge. Their personal knowledge was guarded as a valuable asset. Academic staff naturally must keep important knowledge safe, which can also lead to a very protective attitude towards knowledge sharing. MT2UAPu mentioned that,

“As I can see sometimes, they assume they are more knowledgeable from others. You have the knowledge and only you owned it. They afraid if other lecturers have same knowledge with them, that lecturer easily get promoted or people will refer to them frequently. I call this academic jealousy. We should avoid this culture. If it still there how can we move on and we cannot support our own university” (MT2UAPu).

JS9 agreed with it the above sentiment and mentioned,

“Some lecturers may hoard knowledge, since they do not want to come across as forcing up to management and managers by sharing knowledge too frequently on the platform. This bias is not prevalent on external platforms, such as Facebook and Twitter, but more likely in academic environment” (JSUDPr).

As MT1UBPu stated that management in his University tried to create a culture for knowledge sharing, but it was difficult. People are stuck in old habits and there was a lack of a knowledge sharing culture in the organisation. He said that,

“It happens sometimes takes three months to create change of academic staff behaviour and get them to adopt a new way of working. However, most of the lecturers prefer to use the old ways of communicating. Academic staff as people are individuals of habit, so they only use the platform a little. Besides that, the top management never had the wish to invest time to make a cultural change in the company, and it was important that we didn't take away the academic staff current way of working” (MT1UBPu).

4.9 Summary

This chapter has presented the findings that emerged from data that was collected from four case study universities in Malaysia. Data was collected from participants in four case study universities which when combined were used to enhance the credibility of the findings presented. The findings demonstrate that all the four universities had utilised the social media platforms as tools for knowledge sharing. In addition, the findings of the organisational elements that have emerged could be used to encourage the academic staff to become more accustomed to using social media platforms in knowledge sharing. The case study universities had put in effort to employ social media platforms. The findings corroborate the main aim of the study by identifying the influential organisational elements which contribute to social media platforms based knowledge sharing for all four universities. Furthermore, the focus on making Malaysia as an education hub has resulted in the setting up of many public and private colleges and universities. The government has made various changes in the governance of these public and private HEIs. Besides that, the government can rest assured that quality education is provided to the students in HEIs. This includes teaching and learning and also qualified lecturers. The government has also given a consent to the use of the social media platforms as the medium of teaching, especially in private HEIs. This severe change has been introduced by the government in order to accommodate and compete in the global market in education. The Malaysian education policy and practice has to be reviewed from time to time by the government through the MOE to make sure it is relevant to the needs and aspirations of Malaysian society and to raise the Malaysian higher education system to new heights. Mainly from the inspiration of the Malaysian government the findings could support the identifying of the influential organisational elements which contribute to social media platforms based knowledge sharing for all universities purposely for Malaysian HEIs. The next chapter will discuss the findings in the light of the objectives of this study.

CHAPTER 5 DISCUSSION

5.1 Introduction

This chapter presents an integrated discussion of the qualitative findings in relation to the literature review. The research which is conveyed in this study was undertaken with the aim of investigating the influence of organisational elements that contribute to social media platform-based knowledge sharing within the context of Malaysian HEIs. This research employed a case study strategy suitable for identifying four case study HEIs in Malaysia, two selected from the public sector and two from the private sector, suitable for investigating empirically a current phenomenon occurring in real time and context.

The qualitative semi-structured interviews and review of a selected documents were conducted simultaneously. The data was collected from participants representing those occupying roles as members of the university academic management team, senior academic staff and junior academic staff. The study was directed by a several objectives and the findings were presented in the previous chapter. The qualitative study sought to investigate and identify the influential organisational elements that contribute to social media platform based knowledge sharing by academic staff and the benefits of using social media platforms for academic purposes.

Participants clearly articulated their understanding of knowledge perceiving it as ‘know-how’ and ‘fact’ perceiving that this knowledge provided added value in terms of increasing individual fulfilment, expertise, knowledge, opportunities and improving decision making. The study highlighted that social media platforms are well known and popular in the current situation for sharing knowledge and the ways academics are using social media platforms for facilitating knowledge sharing practices perceived to be efficient and effective ways for improving communication, team working, having an effect on individual confidence, academic performance, development and advancement. It also identified specific organisational elements that were perceived to influence the use social media platforms for knowledge sharing including leadership and support of top management support, staff motivation increase productively, recognition rewards, a networking infrastructure to increase knowledge sharing activities, and training to update skills, knowledge and improve teaching, learning and research activities. Finally, it identified other additional influences of organisational elements for using social media based platforms for knowledge sharing such as staff intention to use social media platforms due to interest and perceived value of using social media platforms for interaction,

communication, and enjoyment in helping and supporting others however there was also a negative perception of the existence of an academic jealousy culture thereby discouraging academics to engage in knowledge sharing on social media platforms.

The purpose of this discussion chapter is to interpret and describe the significance of the findings in light of what was already known about the research problem being investigated presented in the literature review in Chapter 2 and to explain any new understanding or insights that emerged as a result of this study of the problem. As such, in keeping with the broad aim of presenting a holistic account from the viewpoint of the participants drawn from the management team, senior staff and junior staff the following main sections include a discussion of the key findings emerging from the thematic data analysis carried out in Chapter 4.

The first section discusses the findings on academics understanding of knowledge and the types of knowledge shared among academics. The following section discusses the findings regarding the acceptance of social media platforms and the ways for knowledge sharing used by academics who participated in the study from the four case study Malaysian HEIs. The third section discusses the influences of organisational elements that have been identified from the findings and with the related plausible theoretical explanations. In the final section new additional organisational elements and insights emerging from the case studies which were not identified from the theoretical framework will be highlighted. This will be followed by a discussion of the research methodology and the limitations.

5.2 Discussion on the current understanding of knowledge and knowledge sharing by academics and use of social media platforms

5.2.1 Current understanding of knowledge and types of knowledge used by academics in the context of the Malaysian case study HEIs

Knowledge has always been the basic power and main capital in organisational life for many organisations globally, and specifically in this research study for HEIs in Malaysia. As such, Polanyi (2012) defines knowledge as being formed when people combine what people know with information available to them residing in organisational services, facilities, and systems as in HEIs. This section includes a discussion of one of the key findings of the participants understanding of knowledge and types of knowledge they used as academics within the context of the HEI.

The qualitative study explored the understanding of knowledge from the perspective of the sample of participants from the management team, the senior staff and the junior staff in each of the four case study universities including UAPu and UBPu representing HEIs from the public sector and UCPr and UDPr representing the HEIs from the private sector in Malaysia.

Despite many attempts at the definition of knowledge as discussed in the section 2.2 of the literature review are relevant, they may not be complete. As such emerging from the findings from the research data provide insights into the academic participants understanding of knowledge in the context of the HEIs. Participants clearly articulated their understanding of knowledge perceiving it as 'know-how' 'fact', expert opinion, and value added. Added value which they consider increases individual fulfilment, expertise, knowledge, opportunities and will improve individual decision making.

5.2.1.1 Know-how

Typically, the findings revealed that the participants perceived know-how in terms of experiences, skills, and thoughts in people's minds that may or may not be articulated. The senior staff all agreed that know-how is a skill, experience, and a form of insight inside the person who owns it and may illustrate it, express it and share it. This finding is in line with Kidwell et al., (2000) who state that tacit knowledge is the 'know-how' and learning embedded within the minds of the people in an organisation and involves perceptions, insights, experiences, and craftsmanship.

Accordingly additional findings from senior staff provided agreement regarding the personal implications of what they understood know-how to be, where knowledge would enable someone to become an expert and knowledgeable, and how it would positively affect their work. Moreover, based on their understanding of knowledge, it was perceived as significant explaining that their understanding of know-how means that it is acquired and can be used to improve the persons quality of life and improve individual performance and effectiveness. This idea of improving performance and effectiveness is important for the individual academic and the organisation.

The value of academic know-how is supported by Nonaka & Kazuo, (2007) who describe the technical dimension, which encompasses the kinds of informal and hard to-pin-down skill or craft captured in the term know-how or tacit knowledge. Polanyi (1966) supports this by stating

that tacit knowledge [know-how] is derived from personal experience and as such is not easily shared such as knowing how to ride a bicycle. This is reinforced by the work of Nonaka and Kazuo (2007, p. 298) who described tacit knowledge as having a technical dimension, which in the kinds of informal and hard to-pin-down skill or craft captured in the expression know-how and a cognitive dimension consisting of representations, mental models, belief and perceptions so ingrained that we take them for granted and are not easily shared.

5.2.1.2 Fact

The findings from senior staff and junior staff participants they also view the idea of knowledge as fact, which they perceive as factual processed information based on facts and life experiences and may enable the individual who develops factual knowledge to gain more knowledge and provide considerable value for the individual. In addition, some factual knowledge is perceived as something that an individual develops through reading or from experiences in life. This factual knowledge is information that is accumulated and organized in a meaningful way. This is supported by Alavi and Leidner (1999) who define data as “raw” facts and numbers which when used in terms of numbers, symbols, text, images or voices can become “information” when located in a certain context. Wang and Wang (2012) also describe information as a set of meaningful facts in a context.

In addition the findings highlight how the management team participants perceive factual knowledge as something that enhances an individual’s thinking skills, improves decision making, performance and practice and can have a positive impact on the organisation and the individual’s personal, professional and career development. In supporting these findings Jayasingam, et al., (2013) state that knowledge is understood as information processed by individuals including facts, ideas, expertise and judgments pertinent to the individual, team and organizational performance.

5.2.1.3 Expert Opinion

The findings highlighted the ways in which participants from the management team, senior staff and junior staff members perceived knowledge as something that “...made us... a better person, something of an **expert** ...” who can speak about it and share their expert knowledge (MT2UAPu). MT2UAPu also went on to state that as such the person with **expressed expert opinion** is seen as a better person and knowledgeable suggesting they possessed expert knowledge. These responses are similar to the statements by Sezgin and Iplik (2018, p. 172) who define knowledge as expert opinion combined with “...experiences, values, contextual

information...” which have”... become the basic power and main capital in human and, organizational and social life ...”

Similarly the senior staff participants described knowledge as something that we acquire through reading and experiences (SS2UDPr; SS3UDPr) the individual who achieved a level of knowledge and expertise sharing this as an expert opinion created for them a feeling of contentment and approval because of the knowledge that they possessed. Tan et al. (2010, p. 1016) support these perceptions when they state that knowledge is “...an organised body of data, information and expertise for the purpose to create new information...” A junior staff participant contributed to the idea of expert opinion as they commented that in relation to expert opinion that “...knowledge is something pure, discovering something new, abilities and preciouscommodity which is stored ... in your mind and memory... can bring benefit and can prepare you to be a better person..” [an expert].

There are some critical remarks on the matter of 'expert opinion' on the role and functioning of 'expert knowledge' as may be viewed in the university and wider academic community. The first one concerns the idea of the so called 'expert knowledge' as it affects the 'expert opinion' term itself. Importantly expert knowledge as explicit knowledge has been described as documented knowledge while tacit knowledge can be known as non-documented knowledge (Ali, Gohneim & Roubaie, 2014; Ipe, 2003; Jain, Sandhu & Sidhu, 2007; Sohail & Daud, 2009).it affects the term itself. The authors also state that explicit type of knowledge can be easily communicated, shared and transferred. Therefore, a person who has specialised explicit 'expert knowledge' based on training, study, or experience, enables him or her to express an opinion on a matter relevant to an issue. The person must also be able to demonstrate that the 'expert opinion' was based on the expert's specialised knowledge.

5.2.1.4 Value Added

Knowledge can bring added value to individuals as it may improve their quality of life in a variety of ways or at least making success more likely. It can be argued that the value of knowledge has always been a central topic within HEIs as a valuable commodity for individual academics, academic groups, scientific societies, and the organisations of interest.

For example, considering the findings some of participants believed that knowledge might be beneficial for the person as an asset. One senior staff participant perceived that gaining

knowledge will provide you with added value to improve your understanding and performance (SS3UDPr). The participant also believed that this asset would change an individual by improving performance and provide opportunities for career progression. SS3UDPr also believed that when an individual acquired knowledge this also provide an added value on for example a certain matter so that you gain added value for yourself to increase your own knowledge improve your work performance. Kidwell et al. (2000) supports these participants views stating that HEIs may use this asset or added value gained by the individuals to improve their performance by giving employees better access to knowledge and helping them using the knowledge to increase productivity and performance (Kidwell et al., 2000).

The notion proposed by Kidwell et al. (2000) that the added value gained by the individuals to thereby increasing productivity and performance was referred to by another senior staff participant from university UAPu who also shared the same view that knowledge can be described as a value and that this could generate more income for the individual when sharing this asset as it would have a monetary value attached. In addition, this knowledge is also an added value and an asset for the organisation (HEI) to improve performance and achieve recognition in comparison to their competitors.

Therefore, when individual academic knowledge is recognised as an added value and a key asset in an organization that means academics will be more willing to add to that value which creates a positive spiral upwards. This spiralling effect will go a long way towards the recognition of the HEI organization as one that stand out as actively committed to the creation and accumulation of knowledge as an ongoing goal. This has been supported by Cranfield (2011) who have stated that it is a fact commonly acknowledged that HEIs are the ideal place for knowledge creation (Cranfield, 2011).

5.2.2 Types of Knowledge Shared by the Academics: Organisational and Personal Knowledge

For HEIs to function efficiently and effectively it is important to identify the types of knowledge that participants perceive they use to perform their academic roles and responsibilities within the context of their working environment. The findings highlighted that the types of knowledge which participants perceived are shared among colleagues were both organisational knowledge and personal knowledge.

5.2.2.1 Organisational and Personal Knowledge

Tsoukas and Vladimirou (2001) suggest that organisational knowledge is the capacity members of an organisation have developed to draw distinctions in the process of carrying the variety of their work by supporting sets of generalisations whose applications depend on information and understanding,

Some of the senior staff were discovered to mostly use and academic knowledge including lecture notes they had gleaned from experience in conducting online courses, and skills in publishing papers for high impact journals. Senior staff stated that the organisation encouraged staff to share their academic expert knowledge in Quantitative Science and often shared knowledge of current IT tools or technology and may be of assistance to other lecturers in their everyday preparation in teaching and learning. This is supported by Polanyi (1966) who stated that explicit knowledge is knowledge that has been codified formally using a scientific system is easy to share using as an example of knowing what a bicycle is or as in knowing current IT tools or technology.

Senior staff member also said that they find it easy and fulfilling to share their academic knowledge with colleagues and students which is also supported by Nonaka and Ichijo (2007) who state that explicit knowledge can be expressed in words and numbers, easily communicated and shared in the form of hard data, scientific, formulas, codified procedures, or universal principles. In addition, academic knowledge can be digitised. SS7UBPu also shared their teaching experience with colleagues, however as Polanyi (1966) points out experience or tacit knowledge which an individual possesses internally may not be easily expressed or shared. More specifically, tacit knowledge used by organisational members to perform their tasks and make sense of their academic world is hard to verbalise because it is expressed through action-based skills and cannot be always reduced to rules and instructions.

Management team, senior staff, and junior staff participants also added that organisational knowledge or explicit knowledge using subject specific knowledge and research knowledge was expressed formally and was shared with other academics, home students and international students. Kidwell et al. (2000) in agreement stated that explicit knowledge is packaged, easily codified, communicable and transferable. In addition Kidwell et al. (2000) adds that and it can be expressed in formal, shared language including formulas, equations, rules and best practices that contributes to action.

The management team participant also expressed the notion of ‘mobility’ of knowledge expressed stating that mobility in this sense is the accessibility of knowledge via the internet in and currently, mostly people using Facebook or YouTube. The researcher had the chance to access the teaching portfolio files and tried to find evidence of experiences and skills of their expertise and areas of competence and it was well organised. Most of the academic staff updated their teaching portfolio on a regular basis which include CVs, teaching module content and contributions to scientific community associations related to their subject expertise, achievement awards, consultancy and lists of articles that have been published. Put another way as explicit or academic knowledge is described as documented knowledge it can be easily communicated, shared and transferred in the forms of all published content in books, journals, web pages, audio, and videos (Ali, Gohneim & Roubaie, 2014; Ipe, 2003; Jain, Sandhu & Sidhu, 2007; Sohail & Daud, 2009) freely available via the university platforms and social media platforms. This also supports the findings of this study which highlighted how most of the academic staff shared learning and teaching knowledge as part of their organisational role and responsibilities.

5.2.2.1 Personal Knowledge

The qualitative study findings also highlighted most of the participants shared general knowledge, personal and informal knowledge and it was identified that they usually shared informal knowledge using social media platforms. The research found that personal information which was shared by most of the senior staff and junior staff participants as a matter of course included their family lives, their human values, and life skills they have developed in dealing with personal experiences which some did confirm they shared by using social media platforms.

The type of personal knowledge perceived by the respondents similar to the description of tacit knowledge proposed by Mohd Arif, Mahmud, Shaari, Bahari & Rajab, (2009) who described tacit knowledge as embedded personally in an individual experience and depends on other factors such as personal belief, perspective and value systems. Fullwood et al. (2013) provides further explanation as they describe tacit knowledge as practical know-how. As such the definition proposed by Fulwood et al (2013) is useful in stressing that tacit knowledge or personal knowledge. The findings highlighted how academics preferred to share informal knowledge more compared to academic knowledge. The respondents were not always confident with sharing academic knowledge and were apprehensive about sharing their own

academic knowledge because of a perceived academic jealousy culture which impeded the sharing of their own research knowledge among other staff.

Participants clearly articulated their understanding of knowledge perceiving it as ‘know-how’ and ‘fact’ perceived as added value, and the types of organisational and personal knowledge in terms of increasing individual fulfilment, expertise, knowledge, opportunities and improving decision making. Therefore these emerging insights will be valuable for HEIs wishing to facilitate knowledge sharing between individuals and teams must be cognisant of the type of knowledge involved.

5.3 Discussion on the Current Ways of Knowledge Sharing and Use of Social Media Platforms in Malaysian Case Study HEIs

One of the objectives of this research study was to investigate the ways in which knowledge is shared among academic staff with the Malaysian HEIs. The current circumstances of ways employed for sharing knowledge in the case study universities by participants from academic staff groups were explored through semi-structured interview questions such as: How do you share your knowledge? Specifically, the participants explained that they mostly shared knowledge through face to face interactions, university platforms and mostly by using social media platforms.

5.3.1 The use of Face- to- Face Encounters for Knowledge Sharing

As mentioned, mostly academics prefer to share knowledge through face to face encounters. One management team participant (MT4UCPr) described how in their experience the face to face encounters could be formal and informal conducted through meetings, conference settings and seminars. The manager provided an explanation for the use of face to face contact that based on 17 years management experience at the university stated that arguable communications and networking based on face to face contact actually result in the sharing of tacit knowledge, the personalisation of the encounter suggesting that this communication method is qualitatively superior compared to other means of knowledge exchange before the sharing of explicit academic and organisational knowledge which makes it a unique source of competitive advantage. This is supported by Holsapple and Joshi (2000, p.91) who describe the operational objective of knowledge management as to "...ensure that the right knowledge

is available to the right processors, in the right representations and at the right times, for performing their knowledge activities and to accomplish this for the right cost".

The manager (MTUCPr) pointed out that the communication methods and knowledge sharing methods used were based on the type of relationship they had with a person. Sometimes, rather than using electronic methods of communication they would arrange a face to face encounter. This also included occasions to maintain an important relationship, reconnect with previous stakeholders and to develop new contacts and relationships with university colleagues, and externally with national and international stakeholders. There is documentary evidence in Appendix E which indicates that the following programmes were carried out related to face to face knowledge sharing encounters via a United Kingdom Research Sabbatical, Presentation of Conference Papers, Attendance at a Masters Symposium arranged by a Post Doctorate Committee and a Cyber Security Outreach Visit Sharing Session. This is supported by Nassuora, (2011) who stated that "Knowledge sharing is part of the knowledge management process of an organisation".

Similar comments were expressed by a senior staff participant (SS11UCPr) from the same university who stated that for them it was preferable to communicate with colleagues and that they routinely exchange views and opinions through face to face contact. This perception by the senior staff participant supports the view that universities are expected to be places where knowledge is shared freely among academics. However, as Dokhtesmati & Bousari, (2013) highlight there are few pieces of research view knowledge sharing within universities as places where academicians acknowledge the importance of knowledge sharing and commonly exchange knowledge with colleagues in their day-to-day activities.

An experienced senior staff participant (SS3UDPr) having worked at the university for approximately fifteen years described how they prefer to meet a person and engage in face-to-face communications to develop a relationship before they share knowledge. This was also expressed by a junior staff participant who had worked at the same university for 4 years who believed that it is important to meet the person face to face and know that person who may be a follower on your social media platform. It was highlighted by similar findings from other participants who have stated that once a face-to-face meeting has taken place and that a relationship has begun to form it can be maintained and even strengthened over IT platforms. In addition, all participants acknowledged that they were more comfortable sharing knowledge with somebody with whom they have developed a relationship initially via face to face contact.

These experiences shared by the respondents could also be associated with what Tippins (2003) refers to as an unwillingness by academics to share knowledge due to loss of status or power in organisations, in general.

In light of these findings it can be argued that face-to-face contact and interaction is one of the richest medium to share information and assess the sharing of knowledge, because it allows for immediate feedback so that understanding can be checked, and interpretation corrected. The benefit of this form of interaction is that it is less likely to result in misinterpretation of meanings compared to other forms of social encounters, since the knowledge conveyed by body language, facial expression and tone of voice goes beyond the spoken message. The caution exercised by the participants in prefer face to face contact for developing a relationship and evaluating the value for an ongoing knowledge sharing relationship can be supported by the comments from Nooshinfard and Nemati-Anaraki, (2014) who state that the tendency for academics to actively limit their knowledge sharing is especially more prevalent when these individuals have specialised, unique and important knowledge that others do not possess. Wiig, (2012) reinforces this point by arguing that after all, hoarding knowledge and looking suspiciously on sharing knowledge with others are natural human tendencies.

However, there was not a consensus on whether a meaningful relationship, worthy of knowledge sharing, could be built and maintained solely through face-to-face encounters. In addition, each academic staff played an important role in understanding the current situation of knowledge sharing in the university and helped to highlight the different levels of engagement regarding knowledge sharing in their HEI. The fact that not all HEI staff actively participated in knowledge sharing with the same intensity as their colleagues clarifies the challenges that the HEIs face in continuing to implement an effective knowledge sharing strategy that will inspire all to engage.

5.3.2 The use of University Platforms for Knowledge Sharing

To achieve success, the processes in HEIs must be refined with respect to new methods and existing technologies to provide knowledge development, transfer, and sharing for delivering academic services and learning, staff and student management, institutional development, and enterprise management and support, in more efficient, effective and productive ways. University technology platforms can enable and provide an entire technological infrastructure and tools to support these processes within the HEIs (Hendriks, 1999).

Empirical findings revealed that academic participants were aware that the university had a ICT infrastructure which is in line with the Malaysian MOH (NHEAP 2007–2010) vision to develop the HEIs as 21st century ICT enhanced learning and teaching environment that uses ICTs effectively and efficiently to extend the successfully compete in the national and international market and achieve excellence in academic service provision. The academics also identified that the university technology platforms were also designed to help to establish a ‘culture of sharing’ and for the university specific technology platforms to be used to increase and improve communications through the provision of email and teaching and learning. learning technologies for knowledge and information transfer and knowledge sharing. This provide evidence that the case study HEIs have responded to the Malaysian MOH aspirations for the HEIs system as a whole to focus on access, quality, equity, unity, and efficiency and for academic staff to become knowledgeable staff and strive towards developing expertise in specialisations in teaching, research, institutional leadership, by enabling practitioners and professionals more flexibility in participating in the delivery of higher education and sharing of expertise (NHEAP 2007–2010).

A management team participant who is head of ILean had commented that the case study University AUPr had developed ILearn technology platform for the convenience of the academic staff and for students to access and to improve communications between lecturer and student without experiencing barriers or other restrictions. The university goal was to simplify the work of academic staff in searching and finding, saving, and archiving, communicating, and sharing documents, information, and knowledge. This was supported by a senior staff participant SS6UAPu providing evidence of how the implementation of the new university technology platform was perceived to have made a positive effect on the ease of publishing academic materials and the sharing and exchanging of disciplinary and educational knowledge. The perception of the senior staff participant supports the point made by Hendricks (1999) that the touchstone for successful ICT applications for knowledge sharing is the question how they relate to the ambitions, and to the motivation of knowledge workers to match them.

The findings highlighted the ways in which the university policy and of university technology platforms were perceived to have had a positive effect on the experiences of the implementation by the management team participant and senior staff participants experiences of using the technology for knowledge sharing. It is clear from the research data that the university strategy for ICT implementation was paying significant attention to the new technology platform as one

of the vehicles for establishing a new culture of knowledge sharing by updating the university technology communication channels as highlighted in the University NQKA Manual (Document 14a, listed in Appendix E). The literature also supports these findings. Hendrick (1999) for example remarked that ICT can make a difference for knowledge sharing, however understanding what this difference will be cannot be learned by looking at the technology only, knowing how both these processes are constructed, requires active intellectual involvement of the knowledge sharers.

5.3.3 The use of Social Media Platforms for Knowledge Sharing

According to the findings, social media platforms can be used as means for establishing, combining and creating knowledge sharing in Malaysian HEIs. Furthermore, in line with similar evidence discovered during the literature review, the academics showed a vast degree of interest in sharing their knowledge using social media platforms and increasing knowledge sharing activities. Even though face-to-face encounters were preferred as the most reliable and effective process in knowledge sharing, the study findings show that social media platforms could be a choice among the academics. This findings are in line with those of Ghazali et al. (2016), Ismail, Xu, Wood, and Welch (2013), Sulaiman, Ghazali, Zabidi, et al. (2016), Ahmed (2018).

The findings indicate that academic staff in University APu and University CPr have become accustomed to social media platforms as a valuable platform for facilitating knowledge sharing and communication, not only on a personal or individual level, but at the organisational level. These findings were consistent with Corcoran and Duane (2018) and Sulaiman, Alias, et al. (2015). These findings are also supported by the literature published by Al-rahmi, Othman, Yusof, et al. (2015) in which they said all in all, the knowledge sharing applications of social media platforms has dramatically changed how University staff work, learn and interact. They allow for smooth and continuous knowledge sharing within the virtual world and to ensure the social media platforms can enhance the efforts of University strategic goal for communication performance and networking.

The findings highlight that all the case study Universities involved in the research used University Platforms for communication between staff and staff, academic staff and students as in the internal environment. This differs from the findings from the research by Chi (2011)

investigating other platforms in a particular university which is using university platforms for communication, teaching and learning. The results indicate that the participation of academic staff with the University Platforms using web-based applications enable the University to carry out activities in the process efficiently and effectively aligned to achieve the University mission and goal.

The findings indicate that the presence of social interaction within social media platforms applications indicates that academic staff are able to feel their way around these applications, and once they feel at ease in using them for interactive purposes, they consequently get more comfortable and can engage significantly more in interactions thereby enabling information exchange and task sharing through the social media platforms. The findings are consistent with Asunka (2018), Ghazali et al. (2016); Sulaiman, Zaibidi, et al. (2016). The increasingly growing implementation of social interactions, through social media technology, has not only changed the structure of interpersonal or group knowledge sharing and conversation, but has also reshaped the perception of interactivity between University and their staff and stakeholders.

Besides that, the findings from the cases had stated that the University implemented strategies such as emphasising training for academic staff to use and become familiar with social media platforms thereby complying with work and job related procedures and practice. These views had been stated in the article by authors Anari et al. (2013), Gaál et al. (2015), Cilliers, Chinyamurindi, and Viljoen (2017). The benefits of an influential strategy conducted through social media platforms, increasingly involvement and accomplishment of social interactions.

From the findings, it is evident that social media platforms for knowledge sharing implementation is associated with different forms available and the potential to address challenges related to usage. The results also show that using social media platforms also plays an important role in providing opportunities for enhancing knowledge sharing among University members. The results support the findings of a study, which found that social media platform and management support are needed and sharing opportunities for knowledge sharing are important for an encouraging knowledge sharing (Dumpit & Fernandez, 2017).

These findings indicate that face to face contact may be an important method of knowledge sharing, however other methods such as social media platforms are providing opportunities through, better infrastructure, motivation and training for using social media platforms for knowledge sharing and as such play an important part in enhancing knowledge sharing in the

University. The findings are supported by the view of Manca and Ranieri (2016), and Ahmed et al. (2018), who state that social media platforms social media is considered a tool for facilitating communication mechanisms, and bringing people together through sharing content, which is known as user-generated communication. The increasing growth in the use of social media for facilitating knowledge sharing, and ensuring its broad distribution among the individuals, communities and societies that use social media platforms, creates a virtual space that supports knowledge sharing activities (Kwahk & Park, 2016)

Another reason highlighted by the findings for social media platforms based knowledge sharing is because it also appeared that one of the most important motivations for academic staff to use social media platforms is their motivation to achieve academic publications. Academic staff want to increase their citation frequency, to increase their visibility in their research area and discipline, and to disseminate their research to people outside their field. The academic staff use social media platforms to accomplish these goals. Also, social media platforms have expanded the range of publication reach thus addressing the requirements of HEIs system which require academics to demonstrate the impact of their publications and increasing interest from people accessing the work through blog posts, tweets, and other platforms. These has been supported by Carrigan (2016) who stated social media platforms can play vital roles for allowing academic staff to archive and categorise papers, create teaching and learning modules in specific ways to make them available to others who share the same interest.

The discussion on the current on the current ways of knowledge sharing and the use of social media platforms in Malaysian case study HEIs did highlight that the participants agreed that they shared knowledge through face to face interactions, university platforms and mostly by using social media platforms.

Although most academics prefer to share knowledge through face to face encounters there was not a consensus on whether a meaningful relationship, worthy of knowledge sharing, could be built and maintained solely through face-to-face encounters. The academics also identified that the university technology platforms were also designed to help to establish a 'culture of sharing' and for the university specific technology platforms could be used to increase and improve communications through the provision of email and teaching and learning. learning technologies for knowledge and information transfer and knowledge sharing. Finally, academics showed a vast degree of interest in sharing their knowledge using social media platforms and increasing knowledge sharing activities. Even though face-to-face encounters

were preferred as the most reliable and effective process in knowledge sharing, the discussions show that social media platforms could be a choice among the academics.

5.4 Organisational Elements Influencing Academics to Use of Social Media Platforms for Knowledge Sharing

As mentioned in Chapter 2 previous research has led to the identification of several organisational elements which are considered to exert significant influences on knowledge sharing. Among these elements, there is a consensus among the authors that seven are especially important in terms of their influence on organisational culture in the context of knowledge sharing by using social media platforms, namely, organisational culture, organisational structure, management support, technology infrastructure, skills, people and organisational strategy.

As social media platforms are very interactive in helping the academic users to receive immediate response when dealing with teaching and learning providing features that enhanced the communication processes between internal and external stakeholders. As such this research study identified specific factors that academic participants perceive influenced the use of social media platforms in the HEIs for knowledge sharing including leadership and support of top management, staff motivation increase productively, recognition and rewards, a networking infrastructure, training to update skills, to increase knowledge sharing activities and improve teaching, learning and research activities. Additional factors also identified by participants included the intention to use social media platform, perceived enjoyment in helping each other, interaction between academic staff and an academic jealousy culture.

This discussion will be organised into sections to draw attention to the key organisational elements which were identified as especially important in terms of influencing knowledge sharing by using social media platforms, specifically, **management support**, **technology infrastructure** and an **emerging element** which the author has labelled '**people culture**'. However, in keeping with the broad aim of presenting a holistic account from the point of view

5.3.2 Management support as a key organisational element influencing an effective organisational culture to develop a knowledge sharing academic culture using social media platforms

The literature has demonstrated that management support is an important factor facilitation of knowledge sharing, in its many forms, by senior and middle management. In addition, support of top management is considered to be important in the successful implementation and usage of new practices, such as the use of social media for knowledge sharing in HEIs, and therefore invaluable in identifying and resolving problems when risks and conflicts arise (Shields, 1995). It is also argued that in order to successfully manage the development and growth of the knowledge sharing environment, it is necessary to understand both what motivates the majority of the staff members to participate and what prevents them from participating (Corcoran & Duane, 2016). The findings of this study have highlighted that academic participants have stressed that the key factors influencing the sharing of knowledge using social media was management leadership, motivation, and the bestowing of reward and recognition.

5.3.3 Motivational management support and leadership as key factors

The research found that the motivational leadership management and support was an important factor of the management practices that had an influence on the use of social media platforms perceived by the all of the academics who participated from the case study universities. The next section discusses the importance of motivational management support and leadership and its influence on the use of social media platforms. Therefore, without this style of motivational management leadership and support, it is difficult to adopt any new technology in the universities.

The findings highlighted that respondents felt that there was an open climate operating in the universities remarking how managers were not afraid to engage in using new technologies such as social media platforms. The management team participants in all the case study HEIs actively promote, engage and support staff and participate themselves in using social media platforms for knowledge sharing demonstrating more innovative ways of using social media platforms that senior and junior staff can apply in their daily academic work. This style of participative leadership management engagement is supported by Polites (2001) who also investigated the respective influences of different leadership styles by assessing the extent to which each style impacted on knowledge acquisition, his findings showed that a more

participative leadership style was more effective than an autocratic style in the context of knowledge sharing.

Alawamleh and Kloub (2013) supports the importance of a participative leadership style of management and support which allows and develops opportunities for individuals to engage, interact and be closely familiarised with each other and hence creates the degree of trust among team members. Alawamleh and Kloub, (2013) broader the context of understanding the phenomenon of leadership management and support by pointing to the importance of an organisational management structure which are flexible and adaptable, who can respond quickly to changes and particularly suited for a developing a knowledge sharing culture among academics in HEIs.

There is evidence in the findings from respondents that management have created a very open climate facilitating a knowledge sharing culture as they have embraced and engaged with other senior and junior academic staff in using the social media platforms for sharing knowledge and information. Politis (2001) supports these findings of this research by arguing that a participative style of management, where create an organisational climate of greater freedom for individual employees to find appropriate ways of sharing knowledge when invited to do so.

The findings also highlighted how respondents perceived that management had provided complete leadership support and claimed that since reputation management is one of the issues in social media platforms acceptance, top management were initially motivated to adopt social media platforms. However, on engaging a more participative leadership style management had quickly appraised and appreciated the value that can be retrieved from the use of social media platforms particularly for knowledge sharing by academics. Thus, top management continued to demonstrate total commitment to whole system technological implementation of social media platforms actively demonstrating participative leadership engagement and support for academic staff to use social media platforms for knowledge sharing in all the case study HEIs.

The results also revealed participants felt that the case study universities demonstrated a commitment to implementing social media platforms to facilitate more innovative ways for academics to deliver teaching module teaching and learning, for engaging in research and development, and communicating and networking with external industrial collaborators. The findings from all case study participants highlighted the various actions that had been taken by management to manage social media accounts ensuring academic staff members could utilise

social media platforms for teaching and learning programmes and for communication in the University.

Management team participants also stated that the universities have recognised that the trend now is social media, whereby people prefer organisations to embrace social media sites and the benefits include access to information the outcome being to improve services and for the organisation to become recognised as leaders and have competitive edge within the HE sector. All participants recognised that the case study universities, although may have taken a risk in promoting the use of new social media technologies, viewed the top management as innovators in adopting and supporting the use technology like social media platform quickly.

Similar to the work by (Randle & Brady, 1997) who discusses a more managerialism the findings from this study have highlighted a more positive management paradigm shift by the case study universities management team due to changing demands from the trends to use social media platforms in universities. This has resulted in a more participative leadership management paradigm where management engagement and support actively facilitates the the use of social media platforms for knowledge sharing by academics. It is argued this study has undoubtedly highlighted, a rise of a new managerialism and other factors such as the rise of social media technologies, competitive market forces, and the Malaysian MOE policy have all had their influences on the changing culture and structure of HEIs towards the integration of social media platforms into the technology infrastructure for academic knowledge sharing capability and service delivery. It can be argued that similar to the work by Udagedara and Allman (2017) emphasise has been given by the case study HEIs to the urgency of giving appropriate consideration to managerial support for the purposes of augmenting operational efficiencies and further optimising existing capabilities for using social media platforms for knowledge sharing by academics.

5.3.4 Motivation as a key motivational management support factor

Participations stressed that another influencing factor was the motivation provided by management at the case study universities to encourage academic staff to use social media platforms to assist the technological infrastructure and other methods used to share knowledge. The results that the majority of respondents suggest that the management provided motivational support and successfully motivated academic staff to develop their own expertise using additional technologies like social media platforms this enabled the staff development to

further enhance individual and university performance output. The results are consistent with the study by Chen, et al (2015) who have suggested that knowledge sharing motivation in the public sector played an influential role on public service motivation per se. In addition, as part of improving and increasing academic staff task performance and effectiveness in teaching and learning, identifying more efficient methods for improving performance will enhance the reputation of the university. For example, by increasing knowledge sharing capacity in collaborative research and development, consultations with other universities or other institutions and stakeholders, will increase academic research and scholarship, publication, and distribution.

Therefore, the participant agreed that one of the most important motivations for academic staff is to use social media platforms is publication. Academic staff want to increase their citation frequency record, to increase their visibility in their research area and discipline, and to disseminate their research to people outside their field. The academic staff use social media platforms to accomplish these. In addition the finding suggest that social media platforms have expanded the range of publication reach: it addresses the requirements of HEIs system which require academics to demonstrate the impact of their publications and their relationships by leading people towards the work through blog posts, tweets, and other platforms. These has been supported by Carrigan (2016) proposing that social media platforms can play vital roles for allowing academic staff to archive and categorise papers, teaching and learning modules in specific ways to make them available to others who share the same interest.

This would also contribute to raising the reputation of the university as a centre of excellence in research and development and scholarly activities in all subject areas. The findings have demonstrated that effective motivational management will encourage and motive academics towards using social media platforms for increasing knowledge sharing efforts as essential for the institutions to benefit from the knowledge its employees have generated. The HEIs should use and develop type of motivational management support and as Kidwell et al. (2000) point out in doing so they can use this as an additional asset to improve their performance by giving employees better access to knowledge and helping them using the knowledge to increase productivity and performance (Kidwell et al., 2000).

When management also engage with other academics in sharing knowledge activities using social media platforms then they are creating a climate of transparency and openness especially for staff who may feel more inhibited. Therefore, this perceived management support was an

important element in motivating academic staff to share their knowledge. Participants also identified how in addition to senior and junior academic the top management team members including the vice chancellor uses social media platforms to share knowledge and therefore when other staff are made aware of this they are empowered and motivated to engage and share their own knowledge. This was supported in the literature by Shabrina and Silvianita (2015) who identified the various modes of knowledge sharing embedded within the culture of the organisation which may be observed through interaction between management and staff members. They found an organisational culture which provided opportunities to share knowledge was a factor which explained 54.8% of the variance in their data analysis and that 17.4% of the variance was explained by factors such as working culture, employee attitudes and perceptions and their motivation to share.

The introduction of the use of an emergent social media platforms technology into an organisational requires internal and external motivational factors to have an impact on academic staff knowledge-sharing capabilities; relationships with recipients and their impact on employee knowledge sharing experiences and its impact on organisational performance possibly not clearly defined or verbalised, but which are seen as necessary for future success. For a new organisational initiative like knowledge sharing using social media platforms are to be effective then as Kane (2011) proposes top management need to lead by example and motivate employees to act in an environmentally friendly manner (Kane, 2011). It is important to note that participants from all the universities were in agreement that through motivational management and support for effective knowledge sharing social media platforms can become a useful tool supported by Manca and Ranieri (2016 and Ahmed et al. (2018) who consider it a tool for facilitating communication mechanisms, and bringing people together through sharing content, which is known as user-generated communication.

5.3.5 Reward and recognition as a key factor

In this study, reward and recognition are taken to mean the extent to which an academic staff behaviour is influenced by reward or recognition to be received as a promotion, bonuses, salary increases, recognition of excellent academic staff have a connection with knowledge sharing by using social media platforms. Reward and recognition were identified as of prime importance as part of management support for academic participants to use of social media platforms for knowledge sharing. Participants all agreed that the giving or bestowing of rewards have been identified as key for effective knowledge sharing in any organisations

including in HEIs. The findings confirmed that working in any HE organisation, there was an expectation for being recognised and rewarded because of their knowledge sharing expertise with others. A previous study by Al-Hawamdeh (2003) identified that a reward and system, and incentives were a significant factor affecting knowledge sharing. Furthermore, the participant mentioned that a reward could include recognition and incentives such monetary reward. In addition, the use of a system of reward could be recommended as an incentive to facilitate knowledge sharing and to help build a supportive environment among staff and that rewarding was seen as a good way to motivate staff to change their current practices. This is supported by Fullwood, Rowley, and McLean (2018) who found in some studies that rewards are often used as a tool to encourage knowledge sharing among academic staff and propose that knowledge sharing will only take place if rewards exceed costs.

There was an agreement among the participants that they believed that when contributing and sharing more knowledge and expertise could offer greater reward and easier promotion. There is an expectation that by sharing expertise through publications or other successful academic activity should secure a permanent job status and promotion thus attracting financial reward and status recognition. Therefore, the reward could be something given or received as a token given in recognition of service, effort, or achievement. According to Wang and Noe (2010), reward and recognition include the elements that can motivate people to share knowledge. In this study, reward and recognition are taken to mean the extent to which an academic staff behaviour is influenced by reward or recognition to be received as a promotion, bonuses, salary increases, recognition of excellent academic staff have a connection with knowledge sharing by using social media platforms.

Turner and Gosling (2012) have stated that promotion is an uncommon reward system in academic settings have only strongly benefitted those who publish regularly (Turner & Gosling, 2012). Din and Haron (2012) argue that promotion of staff plays an important part to influence academic staff to share their knowledge. Similarly, Corcoran and Duane (2018) argue that rewarding staff by promotion could have perceived benefits that are derived from knowledge sharing activities in HEI. However, Rowley (1996) points out that the normal practice in universities is that academics are positioned on a single salary scale that is influenced by experience and qualifications. Increases in salary are then on an incremental basis, although sometimes increments are used for attainment.

The findings highlighted that all the case study HEIs operated as system of recognition awards organised and administered by the university administration and usually presented annually. However, some participants believed that these awards should be presented more than once a year to motivate the staff to work more productively to accomplish university goals. Based on this perception others stated that it is important to be recognised by top management and receive credit for any knowledge they have shared through technologies such as social media platforms and receive an appropriate reward. This is important as the formal recognition and rewarding of the expertise and performance of the staff an addition way of establishing expert credibility and status of academic staff and the university.

In all the universities, reward has been implemented to encourage staff to enhance their performance in alignment with the goals and mission of university. These responses explain that many rewards and recognition of managerial support that emerged were related to basic issues that brought benefits to encourage adoption among staff. Despite this, most studies acknowledge that reward can support activities that are critical for the organisation and relate to knowledge sharing. The importance of such programmes is also stressed. For example, O'Dell and Hubert (2011) point out that knowledge sharing performance needs to be rewarded and recognised.

It can be argued that the participants have agreed that it is important to be recognised and rewarded for increasing knowledge sharing activities including the use of social media platforms and as Syed-Ikhsan and Rowland (2004) argue it is unrealistic to assume that all employees are willing to easily offer knowledge without considering what may be gained or lost as a result of this action. However, they also suggest that indirect rewards such as appreciation and recognition, play a greater role than the monetary incentives in knowledge sharing.

5.3.6 Technology Infrastructure as a Key Organisational Element for an effective organisational culture for developing knowledge sharing academic culture using social media platforms

Technology provides the tool to do tasks more effectively. In the literature, technology was viewed as a central organisational element to the flourishing accomplishment of knowledge sharing. However, though there is an advantage in using technology as a tool that contributes to knowledge sharing, but the networking processes to share and exchange interactions with

other individuals were still emphasized as was the issue of training and practice for using social media platforms for knowledge sharing.

5.3.7 Technological networking capabilities as a key factor for effective knowledge sharing using social media platforms

The findings revealed that knowledge sharing using social media platforms is practiced by all the participants in all of the case study universities but based on their experience the technology infrastructure should be upgraded to improve current promptness and should focus on the security of the university network. The finding highlighted that participants agreed that the technological hardware supporting social media platforms performance must be applicable because the efficacy of networking capabilities must be fully functional and efficient. This is reinforced by the work of Kim and Lee (2006) who also explored the effectiveness of the organisational technology elements for knowledge sharing. They highlight the role of the Internet in delivery of knowledge sharing practices. Similar to the study by Kim and Lee (2006) results of this study have shown that the majority of the respondents emphasised the importance of advanced IT applications and network systems to effectively facilitate employee knowledge sharing, particularly important as the academics are main drivers of knowledge and information sharing in organisations.

However, some senior staff participants had experienced some problems related to the speed and maintenance support of the technological system supporting the academics knowledge sharing activities using the social media platforms. Al-Kurdi et al. (2018) has highlighted the important role of technological support and infrastructure networking capacity and capability in facilitating knowledge sharing. In addition, the university infrastructure networking capacity is important for the facilitating the knowledge sharing by academics using social media platforms to engage in teaching, learning and research activities effectively. Birnholtz, Yuan, and Gay (2009) have also commented the importance of the ease of access of platforms currently for building up groups online is essential in a general sense whilst Dumbrell and Steele (2014) focus on functionality for user to maintain connection with online platforms for networking among academics with shared research interests.

However, some senior and junior staff participants did agree that in general the university does ensure that the technological infrastructure functions efficiently providing free wireless connections. Academic staff also emphasised that having a good networking capability

supported the process of technology infrastructure in the university which they view is essential as technology infrastructure and networking were dependent on one another. This is supported in the literature by Gaal et al. (2015) who state that these networks can enhance existing relationships and provide a forum for raising questions in a relaxed setting where ideas can be explored and further developed and new concepts generated. In support of the views of the participants in this study Nentwich and Konig, (2014) comment that people directly engaging with each other on Facebook may home in on an interesting academic question which can later be updated by others in the HEI setting. In this way, academics can be regularly updated on the latest developments within a given field of research.

Furthermore, the participants also agreed that the universities are also required to use social media platforms because of its value to the institutions. The using of social media platforms by academics for sharing is an advantage to universities as it is expected to increase collaborative opportunities, helps universities to improve in various areas such as teaching and learning, build good relations with industries, and also improves their competitiveness in innovation. Social media platforms networking capabilities offers an attractive additional media where the universities can market and enhance their products in an interactive manner. Sulaiman, et al. (2016) state that the utilisation of social media such as wikis and social networking sites has expanded where this advancement is continually turning out to be more coordinated into people daily lives. In addition, Ahmed, (2018) comments that the extraordinary advancement of this media form has revolutionised how people share their knowledge and communicate and collaborate with each other while engaging in conversations in the workplace in a timely manner. Importantly the same sentiment is echoed by the participants in this study who have clearly acknowledged the positive impact that using social media for knowledge sharing has had on their work and on the wider organisational operations in HEIs.

With the rapid growth of acceptance and usage of social media platforms, a considerable number of studies have been carried out into their roles within the wider society; yet few studies have focused on their usage by academic staff in HEIs (Sulaiman, Ghazali, Alias, et al., 2016). However, it is clear from the results of this study that the technology infrastructure networking capabilities plays a vital role in the social media based knowledge sharing system which academic users are dependent on in all the case study HEIs and all universities.

5.3.8 Training and practise as key factors for an effective knowledge sharing organisational cultures using social media platforms

The literature highlights that the technology infrastructure networking capability was viewed as an important organisational element which was also the view shared by participants in this study. Equally important is the respondents reported self-efficacy, academic's sense of capabilities regarding reporting their technological skills in using social media platforms for knowledge sharing in the HEIs.

One of the case study university top management team members reported that the university had invested in and established a dedicated unit specifically for providing training on social media platforms. Furthermore, this was one of the organisations strategic plan for increasing and improving technological know-how by providing quality and relevant internal training for the academic staff (and all other employees) is a must to allow the employees to have social media platforms knowledge sharing performance and to create a university wide social media platform knowledge sharing culture and resource base. This was also supported by an entry found in a university document confirming that training for social media platforms had been organised by the institution.

According to the same top manger respondent he had been appointed as Head of Social Media in this the particular university for almost 2 years also reported that initially he had attended a social media platform training programme himself so that he was competent and fully appraised to manage the implementation, and evaluation of the university wide social media platforms training programmes for knowledge sharing. This was confirmed by an entry described in the university Document 9a (listed in Appendix E) and conveyed in Document 16a (listed in Appendix E). This respondent also reported that one of the central concerns of the Vice Chancellor was that they had recognised the value of academic use of social media platforms for knowledge sharing and the role of dedicated social media platforms training and development programme to enhance academics capability there was a positive connection between training and different adaptable behaviour by academic staff for increasing organisation success. This is supported by Menguc et al. (2010) and Zutshi and Sohal, (2004) who claimed that training can be used to enhance self-efficacy levels among employees for sharing knowledge. Similarly, a senior staff member from the same case study university reported that he had experience of attending the inhouse social media platforms training and development programme provided by the university training unit delivered by internal and

external expertise. The respondent acknowledged that the training of staff was critical for improving effective knowledge sharing among individuals in an organisation.

The results show that all the case study universities provided some form of training to staff following the implementation of a specifically designed training calendar, although some training is organised outside the calendar. However, the emphasis given to training and development differs between universities. Training in some universities was considered as part of the routine operational strategy. By this, participants explained that training was a routine because guiding and instructing them and other members of the organisation, was a standard and established practice linked to the operation of the university and the means through which the university, improved and developed its members. This is supported by Cabrera and Cabrera (2005) who commented that generally training and staff are related to each other for better performance and the use of extensive training and development programmes should help to increase general levels of self-efficacy among organisational employees. Consequently, employees will feel more assured of their abilities and will be more likely to exchange and share their knowledge with others.

The diversity and flexibility of training programmes and training sessions were evident in the results from all the case study universities to reflect the diversity of training needs and accessibility driven by academics working time commitments and time constraints. Results obtained from the participants showed a general agreement that the University provided training for staff on social media platforms as the current environment needed and required academic staff to use social media platforms to update their teaching and learning, to share information with their students. This was supported by a management team respondent who reported the flexibility of the training programmes which recognise various levels of expertise on using social media whereby as you become acquainted with the system you get the opportunity to attend more training enabling person to immerse themselves in a more incremental way. This is supported by the work of Bartol and Srivastava, 2002 who found that training is usually provided to the employees, and through such training, they have a better understanding of the concept of knowledge sharing and the methods of engaging a variety of methods of communicating such as social media platforms. As such the university provided two kinds of trainings on social media platforms one training programme designed for social media development up-to-date training for administrative and academic staff with the aim of delivering a general training for all users of social media platforms. The second type of programme was tailored around the needs of admin and clerical staff who managed the

university social media account. This is supported by Alhalhouli, Hassan, and Der (2014) and Andolšek and Andolšek (2015) who have indicated in their studies that support from the management team through effective communications, as well as training of staff, are critical for effective social media platforms knowledge sharing activities among individuals in an organisation to effectively deliver a good service in teaching and learning, and collaboration.

However, the results from some respondents indicated that they were concerned and frustrated with using the social media platforms as they had only attended training on social media platforms once or just several occasions due to workload and time constraint. They argued that in regard to the of training programmes, the university should provide more training on social media platforms and new rules should be imposed that required academic staff to partake in that training at least for two sessions to perform on social media platforms or information technology training. Meanwhile, Document 6c (listed in Appendix E) reported that university intention was for staff to be trained to ensure that they were competent in using social media platforms to effectively share knowledge and enhance their work deliver academic services.

The importance of training is stressed by many authors such as Hagemeister and Rodríguez-Castellanos (2019) who found that there is a positive connection between training and different adaptable representative of organisation success. As such training can be used to enhance self-efficacy levels among employees for sharing knowledge particularly, as knowledge sharing has become more important, given ever-greater pressure to increase university productivity. However, although the study findings show that majority of the respondents from the case study HEIs have reported positive experiences with the training programmes provided for using social media platforms must be acknowledged that some organisations could lack the vision or be unwilling to invest in either specific or generic training. The term, "social media platforms" in this study refers to the fast-evolving suite of applications and platforms, such as social networking platforms that are specifically hosted within an organisation's computing environment. Social networking platforms are often known as social media, such as blogs, public social networking sites, for example, Facebook, Twitter, and LinkedIn. Social media platforms are used for knowledge sharing and are comprised of interactive digital tools, allowing users to not only share knowledge, but also to create or influence the quality and quantity of the content of the knowledge that is shared.

The results from this study do highlight that the knowledge acquired by means of training therefore allows knowledge and skill-sets to be developed by the academics for effective use

of social media platforms for knowledge sharing activities now and in the future and enhances the individuals feeling of self-efficacy and recognise this as an important transferable skill. This is supported by Cabrera and Cabrera (2005) who agree that training programmes increase levels of employee self-efficacy. Thus, Cabrera and Cabrera (2005) recognise efforts of organisations such as the case study universities who use of extensive training and development programmes which should help to increase general levels of self-efficacy among academics and other organisational employees who will feel more assured of their abilities and will be more likely to exchange and share their knowledge with others.

5.4 Other Effective Elements Influencing an Effective Organisational Culture Developing a Knowledge Sharing Academic Culture Using Social Media Platforms

The previous sections in this chapter have included a discussion of the influences of organisational elements which have been highlighted from the literature review and identified from the results of the qualitative study. In addition, ‘new’ and ‘elaborated’ issues emerging from the results of this study progresses are synthesised in view of the current literature. It is important at this juncture to emphasise that another original feature of this research is the identification of some unique organisational elements which were found to have influence on social media platforms based knowledge sharing. The organisational elements: intention to use a social media platforms, enjoyment in helping each other, interactions between staff, and inhibit jealousy culture that were identified by the researcher were not mentioned in the literature reviewed for this study.

The findings reinforce and support the notion of an organisational culture emerging from the results and in addition the confirmation of an academic social media user culture for knowledge sharing activities emerging from new and elaborated issues emerging. A discussion of these new issues emerging from the results of the study will be presented in the following sections. Within the context of the HEIs each university culture is a knowledge based organisation.

5.4.1 Academic Staff Intention to Use a Social Media Platform as a New Key Factor

The results revealed that all the academic staff respondents had identified that the intention to use social media platforms was related to academic staff increasing interest in the value of using social media platforms for sharing knowledge. In addition, they indicated that they

perceived that academic staff may receive encouragement from colleagues to use social media to share experience, ideas, and knowledge, and to display their research by sharing it with others. Some senior and junior academic staff agreed that the senior management team had indicated awareness of the increasingly importance of the general added value advantage of developing a social media platform knowledge sharing organisational culture based, The management had then formalised and implemented an organisational strategy and implemented a programme of support and training programmes relevant raising the university profile as a leading knowledge-based HEI recognised as part of global network of HEIs.

Junior and senior academic staff respondents thought that their intention to use social media platforms for knowledge sharing was stimulated by supervisors, lecturers, professorial staff who had increased their awareness of the power of social media to reach people, become more visibly involved with in academic research and knowledge sharing to develop a support network of valuable connections. This focus on the added value for individual and groups of academics engaged with collaborative knowledge sharing using social media platforms can enhance academic performance. This is supported by the study conducted by Al-Rahmi, Othman, and Yusuf (2015) who focused on knowledge sharing and social media platforms towards student academic performance. Their quantitative investigation addresses collaborative learning and engagement via intention towards social media use that has been tackled by some researches in terms of its impacts on students' academic performance.

The intention of using social media platforms for teaching, research and development was picked up by the junior and senior academic staff respondents noting that they had been informed by the university management team that it was a policy requirement that they were expected to use the social media platforms as one method for communication in the HEI. Most of the respondents though that it was inevitable that there would be an increase in the use of social media for both personal and professional purposes as it is a useful to assist communication and as a medium for sharing information and knowledge regarding courses, events, examinations as well informative articles and facts beneficial for the areas of study. The benefit of social media is that also assists and instant contact and communication for knowledge sharing activities. However, not all respondents agreed and felt somewhat reluctant to utilise social media without providing a reason. However, Hall (2014) study found the users in universities include academic staff who are the most active users in using internet services, especially emerging services such as social media platforms. In addition, Adamovic, Potgieter

and Mearns, (2012) supports the respondents accounts stating that social media platforms are considered as key aspects within the university to facilitate knowledge sharing and the performance of significant tasks to support daily communication, involving activities which include administration and management, teaching, learning and research of university users.

Many junior and senior academic respondents indicated that another intention to use social media platforms was also the speed associated with communicating knowledge sharing which enabled them to be raise their academic profile and achievements for their academic work and research to increase recognition in the academic community network. and his work and research. This practice was recommended and encouraged by numerous colleagues. professorial staff and other researchers to raise your public academic profile. Muda and Yusof (2015b) support the claims by the respondents and stress that the establishment of social media platforms, and the communication of academic performance achievements of teaching and research practice innovation have significant relations. In addition, Sobaih et al. (2016) state that as knowledge can readily be shared with the application of social media platforms both individuals and the HEIs can gain a competitive advantage through the utilisation of knowledge they acquire from these social media platforms. It is the increasing use of social media platforms in an HEI context which has been emphasised in recent times in different parts of the world, and has brought about a significant increase in the number of educational institutions developing a knowledge based organisational culture. The intention of academic respondents to use social media platforms for knowledge sharing is driven by their recognition that social media platforms are enablers playing an important role in the creation of knowledge sharing activities as it provides a platform for academics to engage in activities such as posting questions and answers, discussions, messaging, sharing academic achievements as well as sharing experiences.

5.4.3.2 Enjoyment in helping each other as a new key factor

During the process of investigating knowledge sharing factors influencing the use of social media platforms by academics in the case study HEIs results emerged from the top management respondents who indicated that they perceive that academic members feel enjoyment in helping each other which the management believe significantly influence the use of social media platforms for knowledge sharing activities within that staff group. The management respondent added that they believed that as social media platforms could be important methods for communication between colleagues this increases interaction the

evidence which supports their view that the use of social media platforms was also relevant for helping each other. Although the management team participants were significantly more inclined than the senior and junior staff respondents to attribute enjoyment of helping each other to those factors regarding the increase use of social media platforms for knowledge sharing this is an important new finding emerging from the exploratory and interpretivist research approach taken for this study. However, the research finding are valuable and in a similar vein to the work of Kane (2011) it can be argued if management initiatives like social media for knowledge sharing activities are to be effective organisational cultural norm then top management need to lead by example and motivate employees to act in a more collegiate, altruistic self-satisfying way as expressed in their perception of academic staffs enjoyment in helping each other.

The results from management respondents highlighted an enjoyment for helping people with their own knowledge and that social media platforms provide an effective and efficient of helping one another. Although there is minimal results of responses from senior and junior academic staff participants, as Ali and Dominic (2016) emphasise an enjoyment feeling can also influence an individual's intention to share knowledge with others and as a result, more communication and interaction takes place, which indeed enriches the discussion and knowledge sharing. Apart from that, social influence among their colleagues as well would be the main part of elements that influence academic staff to share their knowledge (Yassin et al., 2013). Influence is the capacity to influence the character, development or behaviour of someone or something. In the context of knowledge sharing, social influence refers to the power of human activity in a society that influences an activity. In the context of this study, social influence refers to the extent to which academic staff felt friends, colleagues, students, administrators, and the community around thoughts and emotions influence academic staff to use social media platforms in knowledge sharing.

The results from the management responses indicate a valid concern with perceived staff attitudes which can contribute to influencing to knowledge sharing as it is good for the reputation of the university as an increase in these knowledge sharing activities are increasing the quantity and quality of their network of contacts. The encouragement to use of social media platforms in the university as part of a knowledge sharing and helping culture could become part of the university custom and practice and not questioned because they had little

or no adverse effects on the system and they facilitated university administration easily than the formalised structures.

Perceived enjoyment in helping someone or others and perceived motivation to engage with social media knowledge sharing on a one to one or group basis appears to be associated with the degree to which an individual believes that he or she can improve their image of demonstrating an altruistic character who enjoys supporting and helping others. The individual may also believe that he or she can improve his or her social interaction and the sense of communion with others on social media platforms and perceived online relationship commitment to the degree to which an individual believes that he or she can persist in a helping relationship with others on an online learning platform. In addition, academics who perceive that they actively engage and interact with social media platforms for knowledge sharing because they enjoy helping others can significantly increase their satisfaction in relation to knowledge sharing outcomes and significantly effects the HEIs supporting the use of social media platforms.

5.4.2 Interaction between academic staff as a new key factor

The study revealed most of the respondents identified interaction between academic staff using social media platforms as an important method of communication within the HEI. Communication refers to the interaction between individuals, and the ability and methods for staff to communicate with corresponding staff are essential to effectively delivering a good service in teaching and learning, research, and collaboration. Lin et al (2009. P. 9) support this stating that “*Knowledge sharing can be defined as a social interaction culture, involving the exchange of employee knowledge, experiences, and skills through the ... organisation*”. The respondents believed that using social media platforms is not only for knowledge sharing but also to support people and assist them with using technology. The use of social media platforms in an HEI context is being emphasised in recent times in different parts of the world, and this has brought about a significant increase in the number of educational institutions (Sobaih, Moustafa, Ghandforoush & Khan, 2016).

The findings suggest that some respondents have identified that social media platforms can have a positive effect on increasing self-confidence of colleagues and influence their engagement in social and scholastic interactions and increase academic staff knowledge sharing activities per se. It has to be emphasised that creating and sharing knowledge are

intangible activities that can neither be supervised nor forced out of people and having a supportive interaction using social media platforms will enable people to cooperate voluntarily and the findings reveal that feedback in the process of knowledge sharing and exchange is highly valued by the academic respondents. Ghazali, et al. (2016) supports these results as they view knowledge sharing as a social interaction consisting of individual interactions and participation and when elements are involved, knowledge sharing is more effective.

The results of the responses from the top management team respondents was fully supportive of academic staff engaged in using social media platforms for knowledge sharing as success in increasing academic related performance output of the organisation internally and externally and improved the reputation of the university. Gaál et al. (2015) supports the view that success factors of social media platforms for knowledge sharing are the interactions have the potential for cultivating and generating ideas. Social media platform users in the university have the advantage of engaging indirect interaction among each other and through this interaction, the possibility to spark an idea from a discussion is increased. These interactions benefit the HEIs and academic staff to enable them to have up to date knowledge of current research and issues (Leonardi et al., 2013).

5.4 Academic Jealousy Culture as a new key factor

Although findings have suggested that academics were engaged in using social media platforms for sharing knowledge new findings have emerged which indicate there is evidence of factors which inhibited the academics from sharing knowledge and learning resources. Results from some management team, senior staff and junior staff respondents indicated that academic staff on some occasions were reluctant or felt impeded in sharing their knowledge. These findings are supported by the work of Yu, et al. (2010) who stress that individuals do not readily share knowledge in every circumstance that the organisation might expect but there are several reasons that might impede the sharing of knowledge even when this is encouraged and desirable.

The findings suggest that although management in the university had been quite successful in developing a culture of knowledge sharing it was difficult and they believed that one reason was some academic members of staff were stuck in old habits and prefer to the 'old ways' of communicating even though they did on some occasions use social media. The management respondent experience was that it can take at least three months for behaviour change to be

realised and for staff to adopt a new way of working. This is supported by Yu, et al. (2016) who as traditionally, knowledge sharing took place among academics by means of face-to-face encounters, meetings or seminars and the use of printed materials, these modes of knowledge sharing were generally restricted to relatively small numbers of individuals. For knowledge to be shared, understanding and support from the management team requires communicative action in enabling and empowering staff members to undergo training and development to improve self-efficacy. Bartol and Srivastava, (2002) concur with this view stating that through such training, staff will have a better understanding of the concept of knowledge sharing. Casimir, et al. (2012) add that the training and development programmes will provide a common language and perception of how they can define and think about knowledge sharing.

The finding revealed that the lack of trust was a factor inhibiting usage of social media platforms and knowledge sharing as it was believed by some respondents that individual academics might be willing to share their hard-earned knowledge with only a small number of close confidantes. Such knowledge represents intellectual property which could be used by others without attribution of the original source. This is addressed by Al-Alawi et al. (2007) indicating that trust and good relations among individuals in an organisation are essential attributes to the successful sharing of knowledge. This is reinforced by Ali et al. (2014) who found that particularly in HEIs, mutual trust among staff members is essential to facilitate knowledge sharing and increasing effective collaboration between colleagues in the university and in other institutions.

Individuals do not readily share knowledge in every circumstance that the organisation might expect (Yu et al., 2010). However, there are several reasons that might impede the sharing of knowledge even when this is encouraged and desirable. One issue is that of the trust whereby individual academics might be willing to share their hard-earned knowledge with only a small number of close confidantes. Such knowledge represents intellectual property which could be used by others without attribution of the original source. Traditionally, knowledge sharing took place among academics by means of face-to-face encounters, meetings, or seminars. Some knowledge sharing also utilised printed materials. However, these modes of knowledge sharing were generally restricted to relatively small numbers of individuals

The perceived presence of the behaviour of academics exhibiting an ‘academic jealousy’ and protectionist hoarding of intellectual property can be interpreted as an ‘academic jealousy and

intellectual property protectionist culture' in the university which is the external manifest of the common values, spirits, behaviour norms of some people who are pursuing and developing their own approach to study, teaching, learning and research. To be exact, this is an academic outlook which refers to people's basic viewpoints about academic activities, and it can be subdivided into outlooks on the academic attitude, the academic purpose, the academic development, and the academic evaluation.

In the context of this study, influence of organisational elements and factors refers to the extent to which academic staff used social media platforms in knowledge sharing. By encouraging a paradigm shift in the behaviour and attitudes of these academics towards the outlook on the academic purpose of knowledge sharing which is part of the answer to what is academic study for, the practical purpose of using social media platforms for communicating and effective knowledge sharing should be stressed. An organisation which incorporates all which incorporates Management should emphasise that when academics pursue knowledge sharing activities through any medium that academics in HEIs usually have a common belief in the pursuit of research and study, and should accept the common academic responsibilities and abide by the common academic norms and regulations, all this will develop a kind of special knowledge sharing on the university campus.

5.5 Conclusion

The goal of all research is to grasp the truth of a phenomenon, but this interpretive study was predicated on the subjective understandings people have of their experiences of the organisational elements and factors which influenced their decision to engage with social media platforms as a means of knowledge sharing. Although there may be differing perceptions of reality opening the door to a relativism regarding truth the thematic analysis of qualitative data, intersubjectivity may protect against relativism, but this does not imply that divergent interpretations can be ignored.

Accordingly, the intention on the part of academics to move to using social media platforms for knowledge sharing is an indication of a paradigm shift in thinking and signs of organisational elements influencing the development of an effective organisational culture and knowledge sharing academic culture using social media platforms. The discussion of participants divergent views can add nuance to the overall picture which emerges from the

analysis of the qualitative data collected in this study and the discovery of a model of the influencing organisational elements and factors for knowledge sharing using social media platforms in HEIs.

CHAPTER 6 CONCLUSION: LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

6.1 Introduction

Based on the contexts of four case study Malaysian HEIs this study aimed to investigate the influence of organisational element that contribute to social media platforms-based knowledge sharing by Malaysian HEIs. Introduction of an ICT infrastructure which is in line with the Malaysian MOH (NHEAP 2007–2010) vision to develop the HEIs as 21st century ICT enhanced learning and teaching environment that uses ICTs effectively and efficiently for knowledge sharing and successfully compete in the national and international HEI market achieving excellence in academic service provision has significance. It indicates a need for HEIs to recognise that social media platforms can be an effective medium for such knowledge sharing knowledge sharing by academic staff and consequently leading to HEIs identification of organisational elements that influence the use of social media platforms.

Undoubtedly, the need for HEIs to shift away from traditional methods of communication for academic teaching and learning, research, collaborative and administrative activities which involves the implementation of organisational elements poses a challenge as little attention has been paid to organisational elements of knowledge-sharing among HEIs with a focus on academic staff. In recognising the empirical and conceptual gaps in the literature, this study explored how the organisational elements affects the growth and utilisation of social media platforms for knowledge sharing by academics in Malaysian HEIs. The findings of the research addressed issues associated with growth and utilisation of social media platforms in the core production areas of types of knowledge and knowledge sharing of the case study HEIs.

Chapter 5 presented the discussion of the findings from the analysis of the data from the semi-structured interviews of academic staff from four case study Malaysian HEIs. In this concluding chapter, the major findings of the research are summarised by drawing together material from previous sections of the study. This chapter will also revisit the research aim of this study which was to investigate the influence of organisational elements that contribute to social media platform-based knowledge sharing within the context of Malaysian HEIs. The objectives were identified as follows:

- To investigate the types of knowledge shared in social media platforms among academic staff within the Malaysian HEIs.
- To identify ways in which knowledge is shared among academic staff within the Malaysian HEIs.
- To explore the influence of organisational elements that contribute to social media platforms based on knowledge sharing.
- To provide recommendations for managing organisational elements to improve the social media platforms based knowledge sharing.

The aims and objectives will allow the examination of the extent to which the present findings can be used as a basis for better understanding for further inquiry into knowledge sharing practices using social media platforms as an additional medium.

The literature review relating to the research methodologies guided the researcher to select appropriate techniques and methods to achieve the research aim and objectives. Based on the researcher philosophical stance, the qualitative approach was adopted as addressed in the research. The qualitative approach allowed for data to be generated within the participants' normal setting and as such the in-depth semi-structured interviews were conducted as the primary data for the collection method. The data collected from the interviews conducted with academic staff participants selected from case study universities, consisted of various experiences, perceptions, and their perspectives, which were analysed using a thematic analysis technique. A review of relevant documents was also conducted to substantiate some of the factual statements offered by respondents during the interviews. The methodological approach ensured the rich data collected through an interactive process with various academic participant representing management and lecturers provided an in-depth understanding of social media platforms and knowledge sharing.

In this concluding chapter, the major findings of the research are summarised by drawing together material from previous sections of the study. It considered three issues, 1) the current understanding of knowledge and types of knowledge used by academics in the context of the Malaysian case study HEIs; 2) the current ways of knowledge sharing and use of social media platforms in the context of Malaysian case study HEIs; 3) the organisational elements

influencing academics to use social media platforms for knowledge sharing in the context of Malaysian Case Study HEIs. Limitations of this study are acknowledged and research contributions and consideration is also given for future research that could further add to the knowledge of the influence of organisational elements which influence the use of social media platforms for knowledge sharing by academics in HEIs.

6.3 Current understanding of knowledge and types of knowledge used by academics in the context of the Malaysian case study HEIs

The first objective of the study was to identify the types of knowledge shared in social media platforms among academic staff. The empirical findings indicated that participants clearly articulated their understanding of knowledge perceiving it as ‘know-how’ ‘fact’, expert opinion, and a value-added asset which they considered would increase individual fulfilment, expertise, knowledge, opportunities and would improve their decision making skills.

This study revealed that senior staff and junior staff viewed the idea of knowledge as fact, which they perceived as factual processed information based on facts and life experiences and may enable the individual who develops factual knowledge to gain more knowledge providing considerable value for the individual. They perceived factual knowledge as something that an individual develops through reading or from experiences and within an academic context such as a university, it is seen as information that is accumulated and organized in a meaningful way. Wang and Wang (2012) also describes information as a set of meaningful facts in a context. Factual knowledge and expert opinion are the basic power and main capital in HE organizational and academic social contexts whereby academic employees occupy core positions necessitating highly skilled profiles which attract organisational and professional benefits.

Given the growth in knowledge sharing through social media platforms communications individual academic knowledge is recognised as an added value and a key asset in an organization and in the wider academic community or networks of interest. As such, as this attracts interest towards the source of knowledge sharing and participants believed that academics would be more willing share knowledge as the added value expressed through knowledge sharing activities on social media platforms will have a knock on effect inevitably creating a positive spirally effect upwards. The outcome would be that this spiralling effect will go a long way towards the recognition of the HE organization as one that stands out as actively committed to the creation and accumulation of knowledge as an ongoing goal.

The findings identified different types of knowledge shared between staff within the institutions. The knowledge shared among academic staff include personal and organisational knowledge. Apparently, when the interaction of the academic staff is aligned to strategic objectives of the institutions, the actual content of the knowledge shared will be very much influenced by the nature of business of the organisation. As per Chua (2001) states that sharing content, allowing the development of new ideas and creating value added knowledge. It is objective and can be expressed unambiguously in words, numbers, and specifications. The findings identified that academic staff apply and rely on personal and organisational knowledge. The findings stressed personal and organisational knowledge could be tacit or explicit knowledges where mostly tacit knowledge hardly to shared. As the findings stated that tacit knowledge could be technical knowledge, which is difficult to share. However, both knowledge was found to have some values for the institutions by allowing of the creation of new ideas, opinions, and views. The findings indicated that both types of knowledge may contribute to the benefits of innovation, improvement, and recognition for the HEIs.

6.3 The current ways of knowledge sharing and use of social media platforms in the context of Malaysian case study HEIs

With reference to the second objective to identify ways in which knowledge is shared among academic staff within the Malaysian HEIs, the author-built knowledge through a comprehensive and critical literature review of the ways in which knowledge is shared in the HEIs. The author had identified the ways that being shared through it and the literature was reviewed in this study included the literature from Europe, United Kingdom, Arabic Countries and Asian Countries.

The thesis found that most of the participants did believe that that in their experience face-to-face contact and interaction is one of the richest medium to share information and assess the sharing of knowledge, because it allows for immediate feedback so that understanding can be checked, and interpretation corrected. They found that the benefit of this form of interaction is that it is less likely to result in misinterpretation of meanings compared to other forms of social encounters, since the knowledge conveyed by body language, facial expression and tone of voice goes beyond the spoken message. The caution exercised by the participants in preferring face to face contact for developing a relationship and evaluating the value for an ongoing knowledge sharing relationship can be supported by the comments from Nooshinfard and

Nemati-Anaraki, (2014) who state that the tendency for academics to actively limit their knowledge sharing is especially more prevalent when these individuals have specialised, unique and important knowledge that others do not possess. Wiig, (2012) reinforces this point by arguing that after all, hoarding knowledge and looking suspiciously on sharing knowledge with others are natural human tendencies.

This study revealed that each academic member of staff played an important role in understanding the current situation of knowledge sharing in the university and helped to highlight the different levels of engagement regarding knowledge sharing through face to face interaction in their HEI. An important finding is that the fact that there are some HEI staff who prefer to actively participate in knowledge sharing through face to face interaction clarifies the challenges that the HEIs face in continuing to implement an effective strategy that will inspire all to engage with social media platform based knowledge sharing.

The study also revealed that participants also used the university technology platforms to increase and improve communications through the provision of email and teaching and learning. learning technologies for knowledge and information transfer and knowledge sharing. The study has demonstrated how the academic staff by using the university technology platforms have responded to using ICT and in particular the university technology platforms as an additional method to assist in developing their expertise in self-efficacy in teaching, research, institutional leadership, and how they have developed more diverse and flexible approaches to participating in the delivery of academic services. The study revealed the case study HEIs had implemented the university technology platform for the convenience of the academic staff and for students to access and to improve communications between lecturer and student without experiencing barriers or other restrictions. This was a response to the university goal to simplify the work of academic staff in searching and finding, saving, and archiving, communicating, and sharing documents, information, and knowledge. It was also revealed that senior and junior staff participants rationale for using the university technology platform was because they had a positive effect on the ease of publishing academic materials and the sharing and exchanging of disciplinary and educational knowledge.

The perceptions of the senior staff participants supports the point made by Hendricks (1999) that the touchstone for successful ICT applications for knowledge sharing is the question how they relate to the ambitions, and to the motivation of knowledge workers to match them.

However, the thesis also highlighted that there was not a consensus on whether a meaningful relationship, worthy of knowledge sharing, could be built and maintained solely through face-to-face encounters or using the university technology platforms. The findings identified that the majority of the academic staff participants within the Malaysian case study HEIs shared their knowledge through social media platforms. By doing so, the participants believed this would increase self-efficacy and improve their performance in communication and group collaboration. This has been reported by Al-Rahmi, Othman, and Yusuf (2015), who also found that social media platforms are effective in increasing the networking and collaboration among academic staff. They found that in researchers in their study were more willing to interact via social media platforms than through face to face interactions. This has been agreed by Sulaiman, Zaibidi, et al. (2016) and Ahmed (2018) who found that because the majority of academic staff find that social media platforms are convenient methods as knowledge is easily shared and are comfortable with using that methods.

The findings revealed that one of the most important motivations for participants using social media platforms-based knowledge sharing is because was it enabled them to achieve success with academic publications. Academic staff want to increase their citation frequency, to increase their visibility in their research area and discipline, and to disseminate their research to people outside their field. The academic staff use social media platforms to accomplish these goals. Also, social media platforms have expanded the range of publication reach thus addressing the requirements of HEIs system which require academics to demonstrate the impact of their publications and increasing interest from people accessing the work through blog posts, tweets, and other platforms. These has been supported by Carrigan (2016) who stated social media platforms can play vital roles for allowing academic staff to archive and categorise papers, create teaching and learning modules in specific ways to make them available to others who share the same interest.

6.4 Organisational Elements Influencing Academics to Use of Social Media Platforms for Knowledge Sharing

Finally, with reference to the third objectives of the study to identify the influence of organisational elements that contribute to social media platforms based on knowledge sharing, the study has successfully identified the influences of organisational elements for social media platforms based knowledge sharing. The study identified specific factors that academic participants perceive influenced the use of social media platforms in the HEIs for knowledge

sharing including leadership and support of top management, staff motivation increase productively, recognition and rewards, a networking infrastructure, training to update skills, to increase knowledge sharing activities and improve teaching, learning and research activities. Additional new factors were revealed by participants responses including the intention to use social media platform, perceived enjoyment in helping each other, interaction between academic staff and an academic jealousy culture.

This thesis found that respondents felt that there was an open climate operating in the universities and the management team engaged along with senior and junior academic staff in using new technologies such as social media platforms. The active and interactive role played by management team participants in all the case study HEIs successfully promote, engage and support staff and participate themselves in using social media platforms for knowledge sharing demonstrating more innovative ways of using social media platforms that senior and junior staff can apply in their daily academic work. The findings revealed that respondents observed that management had developed complete leadership support because they were initially motivated to adopt social media platforms to facilitate more innovative ways for academics to deliver teaching module teaching and learning, for engaging in research and development, and communicating and networking with external industrial collaborators. Alawamleh and Kloub, (2013) also points to the broader context of understanding the phenomenon of leadership management and support by pointing to the importance of an organisational management structure which are flexible and adaptable, able to respond quickly to changes and particularly suited for a developing a knowledge sharing culture among academics in HEIs.

This style of participative leadership management engagement is supported by Polites (2001) who also investigated the respective influences of different leadership styles by assessing the extent to which each style impacted on knowledge acquisition which demonstrates that a more participative leadership style was more effective than an autocratic style in the context of knowledge sharing.

This study revealed that participants attitude towards actively engaging in using social media platforms for knowledge sharing is also influenced by their expectations of receiving recognition and reward. It was also revealed that participants were in agreement that the giving or bestowing of rewards have been identified as key for effective knowledge sharing in any organisations including in HEIs. A previous study by Al-Hawamdeh (2003) identified that a reward and system, and incentives were a significant factor affecting knowledge sharing.

Furthermore, the participant mentioned that a reward could include recognition and incentives such as monetary reward. In addition, the use of a system of reward could be recommended as an incentive to facilitate knowledge sharing and to help build a supportive environment among staff and that rewarding was seen as a good way to motivate staff to change their current practices. This is supported by Fullwood, Rowley, and McLean (2018) who found in some studies that rewards are often used as a tool to encourage knowledge sharing among academic staff and propose that knowledge sharing will only take place if rewards exceed costs. This has also been supported by Syed-Ikhsan and Rowland (2004) reward system is a strong motivator for knowledge sharing with Oliver and Kandadi (2006), highlighting that organizational rewards motivate employees towards knowledge sharing and thereby encourage the development of a knowledge sharing culture.

In addition, the study revealed that academic staff indicated the importance of having a good networking capability and the availability of a reliable university technology infrastructure are dependent on one another. This is supported in the literature by Gaal et al. (2015) who state that these networks can enhance existing relationships and provide a forum for raising questions in a relaxed setting where ideas can be explored and further developed and new concepts generated. However, it was revealed that the majority of respondents agreed that in general the university does ensure that the technological infrastructure functions efficiently providing free wireless connections. In support of the views of the participants Nentwich and Konig, (2014) comment that people directly engaging with each other on Facebook may home in on an interesting academic question which can later be updated by others in the HEI setting. In this way, academics can be regularly updated on the latest developments within a given field of research.

One of the effects of the promotion of using social media platforms in the case study HEIs was the recognition by management and academic staff participants for additional training and development programmes to increase general levels of self-efficacy among staff when using social media platforms. The findings also reveal that the diversity and flexibility of training programmes and training sessions were needed to reflect the diversity of training needs and accessibility driven by academics' working time commitments and time constraints. There was a deliberate response by a management team who recognised various levels of expertise on using social media and provided training opportunities enabling persons to immerse themselves in a more flexible and incremental way. This is supported by the work of Bartol and Srivastava, 2002 who found that training should be provided to the employees, and through such training,

they have a better understanding of the concept of knowledge sharing and the methods of engaging a variety of methods of communicating such as social media platforms.

6.2 New Effective Elements Influencing an Effective Organisational Culture Developing a Knowledge Sharing Academic Culture Using Social Media Platforms

In addition, study revealed some unique organisational elements which were found to have important influences on social media platforms-based knowledge sharing. The organisational elements included: intention to use a social media platforms, feeling of enjoyment in helping each other, interactions between staff, and a jealousy culture identified in the findings which had not been previously mentioned in the literature reviewed for this study.

The study revealed that all the academic staff respondents agreed that their intention to use social media platforms for knowledge sharing was stimulated by an unspoken academic culture comprised of supervisors, lecturers, professorial staff who had increased their awareness of the power of social media to reach people, for academics to become more visibly involved with in academic research and knowledge sharing in order to develop a support network of valuable connections. This focus on the added value for individual and groups of academics engaged with collaborative knowledge sharing using social media platforms can enhance academic performance.

In addition the study revealed that the top management through participative interactions with academic staff who express a feeling of enjoyment in helping each other which the management believe significantly influences the use of social media platforms for knowledge sharing activities within that staff group. In addition, management believed that as social media platforms could be important methods for communication between colleagues increasing interactions supports their view that the use of social media platforms was also relevant for helping each other. Although the management team participants were significantly more inclined than the senior and junior staff respondents to attribute enjoyment of helping each other to those factors regarding the increase use of social media platforms for knowledge sharing this is an important new finding emerging from the exploratory and interpretivist research approach taken for this study. However, the research finding are valuable and in a similar vein to the work of Kane (2011) it can be argued if management initiatives like social media for knowledge sharing activities are to be effective organisational cultural norm then top management need to lead by example and motivate employees to act in a more collegiate,

altruistic self-satisfying way as expressed in their perception of academic staffs enjoyment in helping each other.

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In addition, the study revealed that the top management through participative interactions with academic staff who express a feeling of enjoyment in helping each other which the management believe significantly influences the use of social media platforms for knowledge sharing activities within that staff group. In addition, management believed that as social media platforms could be important methods for communication between colleagues increasing interactions supports their view that the use of social media platforms was also relevant for helping each other. Although the management team participants were significantly more inclined than the senior and junior staff respondents to attribute enjoyment of helping each other to those factors regarding the increase use of social media platforms for knowledge sharing this is an important new finding emerging from the exploratory and interpretivist research approach taken for this study. However, the research finding are valuable and in a similar vein to the work of Kane (2011) it can be argued if management initiatives like social media for knowledge sharing activities are to be effective organisational cultural norm then top management need to lead by example and motivate employees to act in a more collegiate, altruistic self-satisfying way as expressed in their perception of academic staffs enjoyment in helping each other.

The study revealed the respondents identified interaction between academic staff using social media platforms as an important method of communication within the HEI. In addition, respondents revealed that social media platforms can have a positive effect on increasing self-confidence and influence their engagement in social and scholastic interactions increasing academic staff knowledge sharing activities per se. These transformations have led to close working relationships between academics through increased interactions. This is an important

insight as creating and sharing knowledge are intangible activities that can neither be supervised nor forced out of people and having identified a method of supportive interaction using social media platforms will enable people to cooperate voluntarily reveal that feedback in the process of knowledge sharing and exchange is highly valued by the academic respondents. Ghazali, et al. (2016) supports these results as they view knowledge sharing as a social interaction consisting of individual interactions and participation and when elements are involved, knowledge sharing is more effective.

Although findings have suggested that academics were engaged in using social media platforms for sharing knowledge new findings were revealed which indicate there is evidence of factors which inhibited the academics engaging in sharing knowledge and learning resources using social media platforms. Results many of the participants indicated that academic staff on some occasions were reluctant or felt impeded in sharing their knowledge. These findings are supported by the work of Yu, et al. (2010) who stress that individuals do not readily share knowledge in every circumstance that the organisation might expect but there are several reasons that might impede the sharing of knowledge even when this is encouraged and desirable. The finding revealed that the lack of trust was a factor inhibiting usage of social media platforms and knowledge sharing as it was believed by some respondents that individual academics might be willing to share their hard-earned knowledge with only a small number of close confidantes. Such knowledge represents intellectual property which could be used by others without attribution of the original source. This is addressed by Al-Alawi et al. (2007) indicating that trust and good relations among individuals in an organisation are essential attributes to the successful sharing of knowledge.

The perceived presence of the behaviour of academics exhibiting an ‘academic jealousy’ and protectionist hoarding of intellectual property provides evidence of an ‘academic jealousy and intellectual property protectionist culture’ established within the university which is the external manifestation of the common values, spirits, behaviour norms of some people who are pursuing and developing their own approach to study. This is in contrast with the organisational efforts to develop a social media platform based knowledge sharing culture.

6.3 Limitations of the Research

Case study research has been criticised due to a perception that it cannot be generalised. However, case study research has been described as generalisations for interpretive case studies in terms of concept development, theory generation, the drawing of specific implications, and rich insight development. The aim of the research was consistent with the principles of qualitative research: to describe, understand and explain. While common themes emerged, it was not expected that the attitudes and perceptions of one individual would be widely generalisable to another individual or situation. In this way the research contributed to the development of a richer insight into the use of social media platforms knowledge sharing among academics in HEIs.

Case study research has also been criticised due to a perceived lack of rigour and a range of difficulties associated with case study research in this regard includes the influence the researcher has on data collection and analysis. The approach taken in the research acknowledged this influence and particularly the role of the researcher as an ‘academic insider’ working at one of the case study universities and their interpretations in the research process. The researcher dealt with this by stressing the importance of thick description in understanding an explored situation in information and knowledge sharing systems of HEIs research in order to deal with the emerging complex and intertwined conceptual structures which it is difficult to grasp and then render intelligible. To this end, a detailed description of the four case sites and the interview extracts were provided when reporting the research results.

Nevertheless, a few studies have been conducted with a focus on academic staff, most were aimed at exploring the application of social media platforms for teaching purposes. Therefore, according to Sulaiman, Ghazali, Zabidi, et al. (2016), further research needed to be conducted to investigate knowledge sharing among Malaysian academic staff to contribute to the understanding of social media platforms’ effectiveness. Besides this, most of the studies were conducted using quantitative methods and were mainly concerned with general knowledge sharing, rather than focusing on organisational elements in knowledge sharing.

Consequently, the rationale for this research, is to identify new evidence of the influential organisational elements which can contribute to knowledge sharing among academics working in HEIs in Malaysia and the effects for improving the institutions using social media platforms to optimum advantage. The current study has adopted a qualitative approach to gain more in-

depth information and details of the current phenomenon in a selection of case study HEIs in Malaysia.

Another limitation which can be identified in this study is that the results did not reveal considerable concerns related to barriers experienced by academic staff when engaging with social media platforms based knowledge sharing activities, possibly due to the difficulty of the topic and also the acceptance of research on social media platforms among academic staff in universities, especially in developing countries. Additionally, this research was conducted in Malaysia, which is a developing country and the limited number of universities selected due to limitation of time as a crucial factor, the general knowledge of the subject matter in the Malaysian HEIs sector and the acceptance or availability of potential case study universities.

6.4 Contributions of the study

This research built on several lines of study, namely knowledge sharing, social media platforms, and organisational elements. In addition to contributing to each line theories were highlighted, which allowed for theoretical triangulation. This meant that knowledge sharing, social media platforms, and organisational elements together with and therefore data could be interpreted from these different perspectives. This approach helped to illustrate a more detailed picture of the complex issue of knowledge sharing in the particular context of Malaysian HEIs that, in turn, helped to contribute to the overall theory in knowledge sharing. Furthermore, it provided a theoretical link between the knowledge sharing, social media platforms, and organisational elements. which was highlighted as a gap in the literature.

The novelty of this research is in providing an in-depth identification and understanding of the influence organisational elements that can contribute to social media platforms based knowledge sharing within Malaysia HEIs. This is the first research study that explores the influence organisational elements of social media platforms based knowledge sharing in Malaysia HEIs focused on academic staff. This research aslo provides recommendations on managing the influence of organisation elements on social media platforms based knowledge sharing. Thus, the findings of this research strengthen the existing academic literature on knowledge sharing and social media platforms by studying in Malaysian HEIs. Also should not be neglected are an essential part not only for Malaysia but the world in general, given their function. Therefore, it is hoped that it provides a basis for the development of scientific research in this area.

This study contributes to the knowledge of the application of Organisational Elements theory and the utilisation of appropriate social media platforms as tools for knowledge sharing and their application in HEIs. This is especially important as there is a scarcity of the studies in this field. The model was adapted for the purposes of holistic view in identifying the influences organisational elements. Furthermore, the model well established and widely accepted in various research such as Information System, Management and Educational research. For example Organisational Elements Theory is integrated as organisational elements and sharing theory is proven to be an adequate in describing the knowledge sharing activities (Gupta et al., 2000). Furthermore, the findings have highlighted new elements regarding the adoption and use of social media platform and knowledge sharing by management and academic staff in the case study HEIs in Malaysia. The findings of new elements provided new opinions and view to an integrative and effective approach in HEIs that is relevant in sharing knowledge by using social media platforms. The model is not purely original or created solely by the researcher. However, the adaptation and amendments based on the conceptual framework and the findings from this research, as well as the gaps in between it, can be considered as the research's contribution to the knowledge

From a methodological perspective, the consideration of the interviews from Malaysia HEIs public and private as a research methodology, and not only as a traditional data collection technique provided some new empirical insights on the discussion of methodological triangulation in qualitative studies. Furthermore, the study highlighted that the number of case studies was adapted to the particular context of Malaysian HEIs and the broad nature of their activities in knowledge sharing and social media platforms, which was revealed in their business arrangements. This enhances to the reason that choices in the number of cases are reliant on the particular activity and type of HEIs involved.

Based from practical contributions, as the little attention has been focused on knowledge sharing by using social media platforms in general and in Malaysia specifically, where only a few studies have been conducted in different industries. The present study identified the influence organisational elements contribute on social media platforms based knowledge sharing in Malaysian HEIs, thus contributing original knowledge to the field of knowledge sharing and social media platforms besides narrowing the gap identified in the literature. As per researcher knowledge, this is the first comprehensive study regarding social media platforms based knowledge sharing within the context Malaysian HEIs academic staff that

provides the identifying and in depth of how and what are organisational elements influences knowledge sharing in social media platforms. Abdullah, et al. (2015) conducted research regarding knowledge sharing among academician in Malaysian HEIs, but it did not include any issue of organisational element and method for sharing knowledge such as social media platforms. Therefore, this study has helped to bridge the gap in the available body of knowledge concerning social media platforms based knowledge sharing, particularly in Malaysia. Another original feature of this research is the identification of some unique key factors organisational elements influence on social media platforms based knowledge sharing. The organisational elements which were identified by the researcher were not mentioned in the literature reviewed for this study. The unique organisational elements identified from the respondents are particularly well place with 'People as Influential Organisation Element' and are listed as follows:

- i) Intention to Use a Social Media Platform
- ii) Enjoyment in helping each other
- iii) Interactions between staff
- iv) Academic jealousy culture

The above organisational elements are not mentioned by many scholars in the literature but were found in the case studies. On the other hand, knowledge sharing as a social dilemma holds that benefits and costs are the main factors that influence individuals to share knowledge. Therefore, the new elements could be the starting point when investigating knowledge sharing using social media platforms in other areas of HEIs or in other sectors. This qualitative research study enabled the academic staff to identify the elements that they perceive need special attention to improve knowledge sharing in using social media platforms. The knowledge of the dynamic connection between new organisational elements and knowledge sharing would help to reform the social media platforms approach that is used to enhance the extent of knowledge sharing.

Secondly, regarding issues social media platform based knowledge sharing particularly among academic staff. Therefore, when applied to other groups the research can be exploited, and any difficulties encountered in this study avoided, to ensure that the benefits identified as influencing factors can be utilised to steer future research. Thus, the new organisational elements emerging in this study contributes to the body of knowledge and bridges a gap in the

literature which addresses the importance of the use of social media platforms and knowledge sharing among academic staff in HEIs.

This study has identified that the social media platforms have been effectively used for knowledge sharing among academics and have supported the university specific technology platforms in increasing and improving communications through the provision of email and teaching and learning. learning technologies for knowledge and information transfer and knowledge sharing and has assisted in an organisational ‘culture of knowledge sharing’.

This provide evidence that the case study HEIs have responded to the Malaysian MOHE aspirations for the HE system as a whole to focus on access, quality, equity, unity, and efficiency and for academic staff to become knowledgeable staff and strive towards developing expertise in specialisations in teaching, research, institutional leadership, by enabling practitioners and professionals more flexibility in participating in the delivery of higher education and sharing of expertise (NHEAP 2007–2010). The study provides an evidence of a new piece of research which has successfully identified an integrative interactionist framework involving the technological, cultural, organizational, and behavioural aspects of integrating social media platforms for knowledge sharing amongst academics at different levels of a selected number of HE organisations in Malaysia.

In addition, the study found that using social media platforms proved to be a convenient way to overcome some difficulties that the academic staff faced such as geographical distance, time and cost and has increased academic staff feelings of self-efficacy using the technology, a skill which is transferable from a personal setting to an educational setting, and thereby can be utilised for conducting research, collaboration and networking with others. This has certain consequences for the globalisation of knowledge sharing. By globalisation in its broadest sense we can refer to the process whereby through the use of social media platforms for knowledge sharing there is great potential for enhancing and development of a dense global network of interconnections and interdependencies uniting different HEIs, in different countries and regions, so that we create an ever-stronger sense of the academic and social world as one place.

6.5 Future Research

This study has provided a detailed empirical analysis of the rationale for the growth and increasing utilisation of social media platforms for knowledge sharing by academics in HEIs

and the organisational challenges. However, there are some crucial issues that call for further research.

Based on the qualitative findings in this study a quantitative research study can be used to conduct a more systematic investigation of the phenomena by gathering quantifiable data and performing statistical, mathematical, or computational techniques. Quantitative research has the capacity to collect information from existing and potential academic users of social media platforms in HEIs using sampling methods and sending out online surveys, online polls, and questionnaires, the results of which can be depicted in the form of numerical. After careful understanding of these numbers to predict the future of a product or service and make changes accordingly.

A significant concern that should be further explored is the Malaysian MOHE policy vision across the nation state. It is now been established by this study of the prevalence use of social media platforms for knowledge sharing by academics in the case study HEIs. However, there is little research dedicated to variations across the nation, and that the organisational strategic approach of this form identified in this study depends on specific political, and socio-economic context of the state and indeed of the territories. On this note, an investigation of how and to what extent state policies and regulations influences the usage of social media platforms for knowledge sharing in HEIs is essential. Such comparative analysis would, however, be beneficial in understanding the changes in the practices in different university contexts.

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APPENDICES

Appendix A: Ethical Approval

Appendix B



CONSENT FORM

Name:

Position:

University:

Address:

Date:

Anonymity - Requested / Not Requested

I, the above-named interviewee, give my full consent and understand that the information I am giving can be used as data for this research only

I fully understand the aims and objectives of the research and my contributions to the research.

I accept that there are no hazards or risks associated with this work.

I understand that my responses will be kept in the strictest confidence.

I understand that my participation is entirely voluntary and that I may withdraw at any time and without needing to provide reasons for the withdrawal.

I also understand that I may elect to provide the information anonymously and will indicate so above; in which case the researcher will allocate a random reference to me and only the researcher will know the name of the original source.

Signature:.....

Date:.....

Appendix C



THE STUDY LETTER

To whom it may concern,

Research Title: Investigation of organizational elements that contribute to knowledge sharing using social technology-based platform within the context of Malaysian Higher Education Institutions (HEIs)

Researcher: Mrs Nor Erlissa Abd Aziz, PhD student, Salford Business School

Outline of Research: The main aim of this study to investigate the organizational elements that contribute to knowledge sharing by using social technology-based platform within the context of Malaysian HEIs. The research will focus on selected universities, both government and privately owned. This research will cover four case studies, two private and two public universities in Malaysia

This study will gather views of academic staff in selected universities. All collected data will be treated confidentially and any reference to any of participants will be made anonymously. A copy of the final thesis will be provided to the Office of Ministry of Higher Education (Malaysia)

Any queries relating to this research should be addressed to:

Dr. Susantha Udagedara

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INFORMATION LETTER TO INTERVIEWEE

Date.....

DearofUniversity

I am Mrs Nor Erlissa Abd Aziz, a PhD student, at Salford Business School, University of Salford (United Kingdom).

I am conducting my doctoral research, Investigation of organizational elements that contribute to knowledge sharing using social technology-based platform within the context of Malaysian Higher Education Institutions (HEIs)

The main aim of this study to investigate the organizational elements that contribute to knowledge sharing by using social technology-based platform within the context of Malaysian HEIs. The research will focus on selected universities, both government and privately owned. This research will cover four case studies, two private and two public universities in Malaysia. This study will gather views of people in academic positions (Vice Chancellor, Head of Department/ Dean, Deputy Rector, Professor, Senior Lecturer and Junior Lecturer) in selected universities. All collected data will be treated confidentially and any reference to any of participants will be made anonymously. A copy of the final thesis will be provided to the Office of Ministry of Higher Education (Malaysia).

- The interview will take approximately 1 to 1.5 hours.
- Participation is completely voluntary.
- Participants are free to withdraw their consent at any time.
- Information and data obtained will be analysed by the researcher solely for the purpose of this study and will not affect any participants anyhow.

- The researcher will tape record each interview, with the interviewee's permission. The researcher will make detailed notes during each interview and use the tape recordings to check the accuracy of the transcribed interview notes. During the research process, any material collected will be kept in the strictest confidence and in a secure place.
- The typed record of each interview will be sent to the interviewee to verify that it is an accurate record of the interview
- After finishing data analysis, all the (tapes, drafts, etc.....) will be destroyed to prevent any misuse.
- The final written thesis will ensure anonymity by not using any actual names or identifying characteristics of any participants.

This letter seeks your permission to be involved in this research. Please indicate this in the Section at the end of this letter.

If you have any concerns about the conduct of this research, please contact:

Dr. Susantha Udagedara

The University of Salford

Salford

Greater Manchester

M5 4WT

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Thanks in advance for taking part in this research.

Nor Erlissa Abd Aziz
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.....
Please indicate approval for your participation in the study by deleting as applicable.

I wish/ I do not wish to participate in the study title: **Investigation of organizational elements that contribute to knowledge sharing using social technology-based platform within the context of Malaysian Higher Education Institutions (HEIs).**

Signature: -----

Appendix D

INTERVIEW QUESTIONS

I- Demographic Information

1. University.....
2. Name.....
3. Position.....
4. Total years of experience.....

II- Schedule of Interview Questions with Academic Staff

SR	QUESTION	TOPIC
1	What does knowledge mean to you? How would you define it?	General understanding and individual view of knowledge
2	What does knowledge sharing mean to you? Would you describe in details how do you share your knowledge? Do you think people or your colleagues share knowledge? What type of knowledge do you share most frequently? What media or tools do you use to share knowledge? Do you find it difficult to share knowledge with others in the faculty and university? Have you faced it? Has the organisation had a clear policy on sharing knowledge? Would you say that the university actively motivates the staff to share knowledge?	Understanding of knowledge sharing in the university setting
3	What do you understand of social media? Are you using social media platform? - If yes – how? - If no – why not? Do you think social media is one of the best platforms for sharing knowledge? - If yes – how? - If no – why not? Do you think social media platforms can support knowledge sharing in the university? - If yes – how? - If no – why not? Do the university encourage the staff to share knowledge by using social media platforms? Which social media do you think are good for knowledge sharing? In your university is it easy to share knowledge using social media? - If yes – how? - If no – why not? What are the biggest challenges that you have faced regarding sharing knowledge through social media platforms? How do social media platforms help in knowledge sharing in your university?	Social media platform based knowledge sharing

4	<p>What support is available for the staff to share the knowledge in this university?</p> <p>Would you say that the management of your university supports knowledge sharing using social media platforms?</p> <p>- <i>If yes, why?</i></p> <p>- <i>If no, why not?</i></p> <p>Have you been able to use any social media platforms provided by the university in your work to meet a specific need?</p> <p>- <i>If yes, ask interviewee to describe and talk about any additional examples of social media platforms provided by the University</i></p>	Organisational structure
	<p>Does the university practice sharing knowledge among staff using social media platforms?</p> <p>Are there any strategies for sharing knowledge using social media platforms in your university?</p> <p>What practices does your university have to recognise for knowledge sharing using social media platforms?</p>	Organisational strategy
	<p>How do the networking infrastructures in the university support the knowledge sharing on social media platforms?</p> <p>Do they support it?</p> <p>Have you faced any problems in doing this? What are they?</p>	Technology
	<p>Have your colleagues shared knowledge using social media platforms?</p> <p>- If yes – how regular?</p> <p>- If no – why?</p>	People
	<p>Has the management in the university supported you to share knowledge using social media platforms?</p> <p>How does the management motivate the staff to share the knowledge on social media platforms?</p> <p>In this university are you will you be rewarded for sharing knowledge using social media platforms?</p> <p>-if yes-what type of rewards?</p>	Management support
	<p>What do you think of the culture in the university when it comes to knowledge sharing?</p> <p>What can be doneto improve knowledge sharing by using social media platforms in this university?</p> <p>Have you suggested this to anyone?</p> <p>Are there any difficulties or problems when you share the knowledge in your university by using social media platforms?</p> <p>Can knowledge sharing using social media platforms help your university to sustain their competitive advantage?</p> <p><i>Why?</i></p>	Organisational culture
	<p>Does the university provide training or organiseworkshop on how to manage and share knowledge by using social media platform?</p> <p>- <i>If yes – how frequent and when?</i></p> <p>- <i>If no – why?</i></p>	Skills
	<p>Before we end, is there anything else you would like to add for the purpose of this interview?</p>	General

Appendix E:

List of Documents List

University A	Document Reference	Document Name
	1a	Job Description (Portfolio)
	2a	University website
	3a	Newspaper cutting (21 June 2017)
	4a	University social media report
	5a	University social media guidelines (2015)
	6a	Minute Meeting 2017 Faculty IM
	7a	MQA self-review report
	8a	Teaching Module (I-Learn)
	9a	Teaching Portfolio
	10a	Social Media User Satisfaction Report (2016)
	11a	Social Media Monitoring Report (2016)
	12a	Minute meeting JOPWM 2016
	13a	Quality Policy
	14a	University INQKA Manual and Guidelines
	15a	University Social Media Account (Facebook, Twitter)
	16a	Letter of appointment
University B	Document Reference	Document Name
	1b	Job Description (Portfolio)
	2b	University website
	3b	University Social Media Policy (2016)
	4b	Letter of appointment
	5b	Teaching portfolio
	6b	Social Media User Satisfaction Report (2016)
	7b	Social Media Monitoring Report (2016)
	8b	Quality Policy

	9c	University Social Media Account (Facebook, Twitter)
University C	Document Reference	Document Name
	1c	Job Description (Portfolio)
	2c	University website
	3c	Newspaper cutting 15 January 2016
	4c	Letter of appointment
	5c	Teaching portfolio
	6c	Social Media User Satisfaction University Report (2016)
	7c	Social Media Monitoring Report (2016)
	8c	Quality policy
	9c	University Social Media Account (Facebook, Twitter)
University D	Document Reference	Document Name
	1d	Job Description (Portfolio)
	2d	University website
	3d	University Social Media Report
	4d	University Social Media Guidelines (2015)
	5d	Social Media Guidelines Corporate Affairs
	6d	Teaching Portfolio
	7d	Social Media User Satisfaction Report (2016)
	8d	Social Media University Monitoring Report (2016)
	9d	Quality policy university
	10d	University Social Media Account (Facebook, Twitter)