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**Reverse Knowledge Transfer from Multinational Subsidiaries to their
Headquarters in the GCC – the mediating effects of social equity, transfer
mechanisms, trust and willingness**

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ABSTRACT

Organisational knowledge can be reasonably regarded as a valuable organisational asset, and particularly so where multinational enterprises (MNEs) share knowledge between parent and subsidiary to secure competitive advantage. Traditionally, much of the research in this field has focused on unilateral flows of knowledge from the parent to the subsidiary, with less attention directed towards the reversed relationship of knowledge flows from the subsidiary back to the parent. As internationalisation has increased, closer scrutiny has been directed towards this relationship of so-called reverse knowledge transfer or RKT. As more research attention has been directed towards RKT it has become apparent that there are a range of factors mediating variables which influence the nature of RKT. These factors include, but are not limited to trust between the parent and subsidiary, the existence of social equity (i.e. perception of some degree of parity) between the parent and the subsidiary, a willingness on the part of the subsidiary to share knowledge, and the mechanisms of knowledge transfer, which are also shown to affect the speed efficacy of knowledge transfer and completeness and contextualisation.

This study focuses on the relationship of RKT, but explores an emergent aspect of RKT, whereby the parent firm is in a developing/emerging economic region - the GCC (Gulf Cooperation Council), and the subsidiary is in a developed economy. It is the position of this research that there is something about this relationship with the parent is in the GCC, and the asset which holds the greatest interest for the parent, is the knowledge held by the subsidiary in a developed economy. It is only relatively recently, that multinational firms located in developing/emerging economies have begun to expand internationally and proactively seek knowledge, and whilst there is some research into this same scenario of the parent in a developing economy, such as China or India, there is, it is argued little to no formal academic research which has examined the situation of RKT where the parent is in the GCC. This research determines that consistent with existing literature, trust is a key component in the effectiveness of RKT in this setting, as is the relationship of power between the parent and the subsidiary, which it is held in the study is a unique aspect because the sociocultural norms of the GCC.

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CONFERENCES

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- Attended and presented a poster at the conference White Rose Business and
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DECLARATION

I, Abdullah Alajmi, confirm that the Thesis is my own work. I am aware of the University's Guidance on the Use of Unfair Means (www.sheffield.ac.uk/ssid/unfair-means). This work has not been previously been presented for an award at this, or any other, university.

CHAPTER 1: INTRODUCTION

1.1 Research Background, Purpose and Gap

Knowledge is repeatedly demonstrated as being one of the most valuable resources an organisation can possess (Ambos et al., 2006; Miesing et al., 2007; Phene and Almeida, 2008; Fang et al., 2010; Peng et al., 2017). Knowledge only has value, however, if it can be properly and fully captured, disseminated, and used - a practice known as knowledge transfer (Nguyen et al., 2016). As organisations expand, and particularly so internationally, those firms capable of capturing and sharing their knowledge effectively are found to have a sustainable competitive advantage (Braunerhjelm et al., 2018). This being said, in strategic management literature it is recognised that it is a fallacy to suggest that competitive advantage is indefinitely sustainable, but according to Paulin and Suneson (2015) it is fair to suggest that firms which capture and exploit knowledge on an ongoing basis do have a sustainable medium-term advantage over their competitors.

It is understandable to assume that knowledge flows from a parent company to an overseas subsidiary. Certainly, this is typically how a subsidiary is established or formed in the first instance. But, as globalisation continues to increase, and formally weaker economies such as those in the GCC for example Kuwait and Saudi Arabia (GCC Stat, 2018) become stronger, there is growing recognition of the value of reverse knowledge transfer. Reverse Knowledge Transfer (RKT) refers to the practice of subsidiaries of a parent company sharing localised knowledge (Reus et al., 2016). This knowledge is inherently valuable because if used effectively, it gives local advantage supported by the resources of a large parent. Mudambi and Navarra (2015) suggest that, in combination, and if applied properly, this is an excellent means of securing growth opportunities.

Difficulties in RKT arise, however, for a number of obvious practical reasons, but according to Ambos et al., (2006) particularly tacit or misunderstood reasons, with the result that valuable local knowledge can be overlooked or lost. The main challenges in relation to RKT are that there is a lack of reliable mechanism which enables the subsidiary firms to share knowledge upstream with the parent (Fang et al., 2010). Further, there can be a lack of understanding as to what constitutes knowledge, and an assumption that the parent company 'knows best'. Maurer et al., (2011) argue that this situation can create resistance to knowledge transfer with employees in subsidiaries feeling that their local experience is somehow of lesser value, despite the parent firm seeing fit to invest in them. It is admittedly recognised in literature that

'knowledge' can be an elusive concept to define, however, Nonaka and Takeuchi, (1995; p.87, cited in Bolisani and Bratianu, 2018) consider knowledge to be "*justified true belief*". Neta and Pritchard, (2009) support this interpretation suggesting that knowledge can be characterised by the so-called tripartite account of knowledge – or the conditions of truth, belief and justification.

At present the state of knowledge regarding RKT confirms that there are theoretical mechanisms which ought to explain reliable replication of RKT, but in practice the empirical evidence is markedly more mixed (Peng et al., 2017). For example, the work of Levin and Cross (2004) demonstrating the necessity of trust between parent and subsidiary before effective knowledge transfer can take place, even if mechanisms for knowledge transfer exist. Likewise, the work of Minbaeva (2007) who highlights the importance of understanding the characteristics of knowledge to facilitate effective knowledge transfer, and the necessity of understanding the role of individual agency of employees in the process. The complexity of the condition of knowledge implies the existence of a research gap, and that further research would be beneficial in order to understand what might be driving these mixed results. There are several possible further lines of enquiry into the efficacy and replicability of RKT in order that parent organisation can benefit, as can any other subsidiaries, if there is intercompany knowledge transfer between subsidiaries before reversing this knowledge to the parent.

Literature suggests that multiple potential factors are likely to impact the efficacy of this process, and three particular factors form the focus of this study:

- First, a willingness of subsidiaries to transfer knowledge, and even if mechanisms for knowledge transfer exist individuals within subsidiaries can't necessarily be compelled to share knowledge, or at least not the full extent of it (Oh and Anchor, 2017).
- Secondly, trust is necessary, as this is likely to be a mediating variable on the willingness of subsidiary to share knowledge. (e.g. Levin and Cross, 2004)
- Finally, context, because as identified in the opening discussions, knowledge is acquired through context, meaning that without an understanding of the context there is a potential to the knowledge acquired to lose some of its veracity in transfer (Rabbiosi and Santangelo, 2013).

Gaps in the state of knowledge appear to exist around the practical mechanics of RKT in specific sectors and subject to specific extraneous circumstances (Meyer et al., 2011). For

example, managing RKT when subsidiaries are outliers or isolated, and there is established cultural resistance to knowledge sharing - how are such barriers reliably overcome? Further, how can knowledge be consistently captured and shared? Empirical research suggests that some firms are excellent at knowledge capture but poor at knowledge sharing (Edwards, 2011). Other findings suggest that firms may be patchy in their effective knowledge capture, but can share knowledge effectively when they have managed to capture it (Edwards and Temple, 2010). Without a willingness to share and feeling safe, or trusted in sharing knowledge, neither of these factors will be effective. Likewise, even if mechanisms exist for knowledge capture and transfer, it is unclear whether mechanisms exist for catching the context of knowledge in order that it can be used as a source of advantage.

It is the lack of consistency and reliability in RKT, which indicates that there remain gaps in the current state of knowledge that can be practically applied in the real world to wider benefit. In particular there appear to be inconsistencies in the state of knowledge in emerging and developing economies, when viewed from their perspective. For example, Ciabuschi et al., (2017) who report on the tacit barrier of political embeddedness, or Kong et al., (2018) who reveal the crucial role of inter-personal relationships between expatriate managers and local employees as a mediating influence upon trust. Given the range of evidence and theoretical views on the subject of factors affecting RKT, the particular intended gap that this research seeks to explore in more depth is RKT from subsidiaries based in developed economies to the headquarters based in developing ones. Focus on the GCC (Gulf Cooperation Council) region indicates that many new organisations have established themselves with the significant potential for international expansion due to financial resources. There is, however, a lack of consistent understanding about functionality and successful exploitation of RKT back to developing economies, when the HQ is in the developing economy and not the developed one. This is identified as a gap in the current state of knowledge, which would benefit from deeper investigation, as larger businesses continue to grow in developing and emerging economies, and businesses from developed nations begin to stagnate (Peng et al., 2017; Hislop et al., 2018, Table 1.1).

TABLE 1. 1: SUMMARY OF KEY PAPERS

PAPER	KEY FINDINGS	METHODS OF ANALYSIS
Ai and Tan (2020)	The role and importance pre- and post-acquisition knowledge transfer	Case study comparison of three multinational telecommunications firms
Ciabuschi et al., (2017)	The embeddedness of certain political regimes (china) make it less likely parent will share knowledge	Structural equation modelling
Fu et al., (2018)	Found that Chinese telecoms firms developed a tripartite model of RKT	Case study
Kong (2018)	The importance of the role of trust between expatriate managers and local managers (individual agency).	Quantitative survey of 128 subsidiaries in 73 Chinese firms
Liu and Meyer (2020)	The importance of collective endeavour, vertical and horizontal ‘boundary spanners’	Micro-foundational approach (case study)
Lyu et al., (2020)	Depth and breadth of knowledge and moderating effects of strategic consciousness and bilateral flows	Hierarchical regression analysis in 270 Chinese firms
Nair et al., (2015)	Role of subsidiary competencies	Qualitative survey of Indian firms
Nair et al., (2016)	Role of subsidiary competencies and relevance of knowledge	Case study of Indian multinationals
Nair et al., (2018)	Indian parent, UK subsid – partial least squares testing demonstrates a positive relationship of collaboration leading to knowledge transfer	Partial least squares (and use of same two theories as applied in this study)
Najafi-Tavani et al., (2012)	Subsidiary characteristics (subsidiary willingness and subsidiary external embeddedness) and relationship characteristics (internal embeddedness,	Survey of 178 UK-based subsidiaries

	socialization mechanisms are important mediating variables.	
Najafi-Tavani et al., (2015)	Empirical test of the impact of subsidiary influence and autonomy on reverse knowledge transfer	Survey of 183 UK-based subsidiaries
Oh et al., (2016)	Effects of knowledge transfer capacity and relational (social) capital on the reverse transfer of local market information from subsidiaries within MNC networks. Size of firms (parent and subsidiary) matters. Key drivers for large subsidiaries are knowledge development capability, subsidiary autonomy and trust between subsidiaries and MNCs.	Spearman Rank Order
Peng et al., (2017)	Determinants of successful reverse knowledge transfer (RKT) in Chinese enterprises operating in the United States. Link between strategic asset-seeking motivations, headquarters (HQ) control, and subsidiary age to RKT.	Exploratory model (grounded theory)
Su et al., (2020)	Based on data from 177 headquarters - subsidiary relationships, findings indicate that political ties of Chinese headquarters increase organizational distance between headquarters and subsidiaries.	Partial least squares
Wang et al., (2019)	Using data collected from a multiple-informant survey of 145 MNC subsidiaries, reveals that formal	Survey of 145 MNC subsidiaries

	attention of the parent company fully mediates the relationship between reverse transfer of innovation and subsidiary power	
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Source: The researcher

By evaluating seminal papers from the last 20 years of RKT research, (*Table 1.1*), it is possible to see that there has been an evolution of understanding the nature of power between parents and subsidiaries, but also an increase in external factors impacting upon the nature of the relationship which serve as significant mediating variables. Such mediating variables include, but are not limited to, trust between the parent and subsidiary (Levin and Cross, 2004; Kong et al., 2018), willingness to share knowledge on the part of the subsidiary (Su et al., 2020), characteristics of knowledge (Lyu et al., 2020), and organisational power (Najafi-Tavani et al., 2015; Wang et al., 2019).

On the basis of more recent research, there is greater evidence to support the view of mutual interdependency between parent and subsidiary relative to different forms of knowledge and resources, and this has implications for the way in which types of knowledge are captured and transferred, for example the work of Oh et al., (2016) who explore the role of organisational size in RKT, or Nair et al., (2018) who examine the role of RKT from Indian parents and UK subsidiaries, and also the speed and extent to which this knowledge is utilised (Kogut and Mello, 2017). Accordingly, the practical focus of this research is to deepen understanding in relation to the roles of trust, willingness to share knowledge, social equity and knowledge transfer mechanisms on the efficacy of RKT from subsidiaries in developed economies back to their parent firms in the GCC.

1.2 Research Aim and Objectives

1.2.1 Research Aim

This aim of this research is to fully understand how RKT functions from subsidiary to a parent company when the subsidiary is in a developed economy, and the parent company is in a developing economy. At present this remains an under investigated area, as until very recently the economic and technological conditions did not exist for this situation (Peng et al., 2017). However rapid improvements in the economy of the GCC region generally, most notably through the discovery of valuable mineral resources in the later part of the 20th century created

a booming economy in the GCC, whilst, unrelatedly there has been a stagnating economy in much of the developed world. With increasing globalisation and the mobility and flexibility of citizens of the GCC, Bryant and Nguyen (2017) contend that there have been opportunities for organisations within the GCC to engage in FDI themselves reaching out and investing in developing economies.

This creates a differential balance of power, as although the money and funding rests within the GCC and parent company, there are different types of knowledge in developed economies (Hislop et al., 2018), for example, localised sales and market knowledge or process control knowledge. To some extent, firms in the GCC are still partially reliant on the knowledge of firms in developing economies to help expand their own operations as they experience the growth curve (Bertelsen et al., 2018). Furthermore, there is additional complexity in that many of the growth patterns witnessed in the GCC model on truncated versions of growth patterns from developed economies (Ceptureanu, 2016). Even though the GCC has a very long history of its own, it is only over the last 30 to 40 years that they have expanded in terms of rapid economic growth, and much of this has been modelled on the growth patterns of Western developed economies.

In the view of Vedung (2017), the ensuing power balance has implications for the way in which RKT takes place - whilst the parent company and the GCC has power because it controls the funding, the subsidiary has power in the form of knowledge which is related to direct experience of Western business models which GCC firms are attempting to emulate. By exploiting and synthesising the multiple forms of knowledge in the subsidiaries of developed economies, this offers a unique opportunity to generate new knowledge ahead of GCC competitors. This means there are two forms of reverse knowledge, social and cultural (Cavaliere and Lombardi, 2015). These types of knowledge are related to the way in which the GCC parent can expand into developed economies and engage in FDI and accelerate their knowledge of developed markets in order to exploit the models of capitalism more successfully.

This means that it is necessary to identify and measure knowledge and its mechanism for transfer which is why quantitative approach using combined scales; accordingly, structural equation modelling will be necessary to address this research problem.

1.2.2 Research Objectives

The objectives of this research are:

O1 - To critically evaluate the nature of RKT from developed economies back to developing economies, whereby the parent company in a developing economy has superior financial resources but lacks knowledge in relation to developed marketplaces. Specifically, to explore the nature in business services.

O2 - To ascertain the impact of mediating variables on the nature of RKT in the form of willingness to share knowledge, trust from subsidiary to parent, and the context of knowledge in order for the knowledge to give value back to the parent company.

O3 - To investigate the mechanisms of knowledge transfer in light of these assumed mediating variables to determine whether particular knowledge transfer mechanisms are more suitable and can be explained or understood through existing theory and concepts, or whether a fresh critical interpretation is required.

O4 - To determine the distinct characteristics of RKT from developed to developing economies in recognition of the balance of power between a parent and subsidiary and the fact that developing economies are still taking their cue from developed economies in terms of business development, but have superior financial resources for investment and are typically seeking knowledge as a core resource

1.3 Research Questions

The core research question of this thesis is:

***Core Question:** To what extent do multinational firms do headquartered in the GCC extract value and secure sustainable competitive advantage from knowledge captured and returned from their subsidiaries in developed economies?*

The sub-questions are:

RQ1 – What role does **social equity, trust** and **power** serve in the willingness and motivation to share knowledge and the speed of knowledge transfer

RQ2 - What are the most **effective** mechanisms for capturing and returning knowledge from subsidiaries in developed economies to headquarters in the GCC? And what is the impact of contextual **cultural similarity** between them?

RQ3 – What **value** does the parent place upon the knowledge captured from the subsidiary, and what **action** does it take based on this perceived value?

1.3.1 Link between the Research Aim, Objectives and Research Question

Knowledge, and specifically organisational knowledge, is widely regarded as a key source of sustainable competitive advantage (Dalkir, 2018). This observation is reached in literature on the basis that organisational knowledge, whether created and/or disseminated typically represents a non-imitable resource (Grant, 1996a; Grant, 1996b; Argote and Ingram, 2000; Ipe, 2003; Kahn et al., 2015a). Accordingly, it follows that there is a strategic value to be obtained from the capture and utilisation of knowledge on an effective and replicable basis. However, there are also grounding assumptions in literature with regards to the treatment of knowledge, particularly in relation to direction and flow of knowledge, and also assumptions regarding the subsequent utilisation of knowledge (Mudambi and Navarra, 2015). Until relatively recently in the history of strategic literature relating to knowledge, it was typically the case that the majority of subsidiaries were in developing and emerging economies and were keen to acquire the knowledge of their parent firms based in developed economies.

Now, however, as developing and emerging economies begin to accelerate in their growth trajectory and also knowledge development, it is the position of this thesis that the balance of power in relation to knowledge transfer has shifted. Work such as that of Luo and Tung (2007; 2018) who have studied the internationalisation approach of firms in emerging economies such as China, along with the work of noted scholar of internationalisation strategy Peng (cited in Peng et al., 2017), and also the work of Nair (2015; 2016) who have variously examined the internationalisation of Indian-based firms. Building on this body of work, the novel perspective of this study is that it shines a light on the nature of the relationship in respect of knowledge transfer when the parent is in the GCC (a developing regional economy) and the subsidiary is in a developed economy.

The aim of this research is to critically evaluate this reversed relationship through the lens of knowledge transfer, as it is posited that a variety of mediating factors impact the nature of knowledge transfer and more importantly RKT to a greater or lesser degree. The reason this is important, is that contemporary literature reveals that the motivations for international expansion by organisations headquartered in developing and emerging economies differ to the motivations for international expansion as compared to firms headquartered in developed

economies (Nair et al., 2018). For example, the work of Bangara et al., (2012) which reveals that at the time of their study, Indian multinationals had a far more aggressive/high-risk approach to internationalisation than theory might anticipate. Or, the work of Cahen et al., (2017) revealing that multinationals in developing economies seemingly relied heavily on technology to capture valuable information about target markets for their overseas subsidiaries. In both instances, and indeed in the wider literature, a pattern appears to emerge in that multinationals based in developing and emerging economies place a strong value on knowledge as a valuable resource, and this is a driving motivation in their internationalisation strategies. These differences in motivation and likely perspective also very likely, it is suggested in this study, impact upon the way in which knowledge is valued, treated and transferred.

The purpose and motivation of this research is to critically evaluate how knowledge is valued when this relationship between parent and subsidiary is reversed, and also how knowledge is treated. The objectives of the study are therefore focused around understanding the nature and management of knowledge, and the research questions focus on the nature of RKT when the parent is in the GCC, and the subsidiary is in a developing economy viewed through the lens of the mediating variables of trust, willingness to share knowledge, and value placed upon the knowledge by the GCC parent. However, thus far, research into the modes and mechanisms of RKT has been positioned predominately as a parental relationship, whereby the parent instructs the subsidiary, and expects codified knowledge in return. It is only over the last few years that closer attention has been paid to the increase of RKT back to parents headquartered in the developing economies, and very little research has examined this scenario of RKT when the parent is in the GCC. As developing and emerging economies continue to grow in size and global influence, having a practical understanding of different approaches which might be taken to RKT informs the subsequent implications for competitive advantage driven through perceptual understanding.

1.4 Research Context

1.4.1 Rationale for Focus on the GCC

This research focuses on the GCC region for two reasons; first, because the region is experiencing volatile economic growth albeit on an upward trend, meaning that there is more interest in FDI (Foreign Direct Investment) and expansion in this region as compared to many other parts of the world, making it likely that there will be considerable evidence of RKT (Altaee, 2018). The second reason being that there appears to be limited research which has examined the opportunities for RKT in this context at present, in part due to the relative recent

growth of investment in the region. Of particular interest is the rapid growth of financial and particularly banking provision in the GCC, as many countries in the region found themselves experiencing rapid economic growth thanks to the discovery of the natural mineral reserves. Alongside this, there has been a recent and sustained campaign to rapidly increase national standards of educational attainment, meaning that the knowledge capital of the GCC in terms of educational standards has created further opportunities for business services growth and development (Muhammad et al., 2016). At present, the GC is therefore in the position of having financial resources, and knowledge capital, but relatively limited experience as to how to exploit this valuable combination and penetrate international marketplaces.

It would be false to assume that every country within the region shows the same cultural and social norms (Souiden and Rani, 2015). This would be as assumptive as suggesting that every country in Europe shares the same social and political views. Therefore, there is clear opportunity for RKT from subsidiaries in developed economies to accelerate the knowledge of the parent firms in the GCC through RKT. As Saudi Arabia has experienced some of the greatest economic growth in recent years, in large part due to their natural mineral reserves, and also specific economic development policies (Asif, 2016), much of the banking sector has expanded out from Saudi Arabia into other parts of the world. Whilst financial transactions, was still occur electronically, this demonstrates the need for understanding the differences between different countries in the region in order to understand how culturally, organisations can benefit from their links with the parent company.

Thus, it is justified to argue that the parent of the GCC subsidiaries must be well convinced of the character of the knowledge in order to eventually facilitate the transfer of the knowledge to the parent. They must be able to ascertain that the knowledge is indeed reliable and valuable, and also the fact that the knowledge is connected to the ideals and goals that exist at the parent. In the case of GCC, the presence of infrastructure that helps in knowledge transfer is important and is influenced by the characteristics of the knowledge in the process of reverse knowledge transfer to the subsidiary at the GCC.

As the detail of this thesis focuses on the GCC because the novel contribution that this region offers in terms of understanding the flows of knowledge between parent and subsidiary, it is important to acknowledge the interrelationship of organisational activity and wider economic conditions. Grant (1996a; 2002) argues that no organisation operates in a vacuum, meaning that even the most successful organisations are to some extent exposed to and affected by wider

macroeconomic conditions at local, national and also global levels. Several theorists, but most notably Michael Porter (2008) have illustrated the nature of this dynamic, highlighting that factors such as local conditions, e.g., availability of mineral resources or skilled labour, input of national governments, and also global market products and services. Indeed, the pandemic has brought into sharp relief the extent to which even the most robust organisation confined itself subject to unforeseeable macroeconomic shock. To this end it is necessary to acknowledge the volatility of macroeconomic conditions within the GCC region, and also socio-political tensions such as the blockade of Qatar and the way in which these aspects are likely to have affected organisational operations, tactics and strategy in relation to international expansion and knowledge transfer.

To provide an illustration, Saudi Arabia's fortunes have been volatile over the last 20 years, witnessing greatly improve economic performance in the early 2000's, recovering from stagnation in the later part of the 20th century. However, there has been a steady decline since 2010, and it is argued by Nurunnabi (2017) that in fact the United Arab Emirates (UAE's) GDP per capita is actually less than it was in 1981. Measured against developed economies, this volatility and economic performance within a specific region would be considered as indicative of a lack of national control at government level, and poor monetary and fiscal policy. The implications of poor financial control by national governments and that they will probably be adverse impacts on policies of international expansion and trade. Volatile economies find it very difficult to attract inward FDI (Foreign Direct Investment) principally because such economies are considered too much of a risk for all but the most speculative investor, or unless there is a very good practical reason to invest in a nation such as its co-proximity with a more stable economy.

This situation has particular implications for firms with parents in the GCC, in as far as it is difficult for them to attract and sustain FDI as part of a strategic alliance or partnership, unless it is by outright acquisition. Such outright acquisition is likely to require significant cash reserves and investment, and against a volatile backdrop, some GCC parent firms may well have decided that their route to economic stability in a volatile local market is by conducting a greater proportion of their business overseas. Whilst this would be considered a highly risky strategy under Western theoretical standards of international expansion, from the perspective of a firm already operating in a volatile environment, such an approach is relatively no less risky than conducting business in the home country in any event. Viewed from this perspective, the strategy of capturing knowledge from subsidiaries in developed economies makes sense.

An additional important macroeconomic factor which has contributed to the growth of international business particular by GCC firms, is the rapid growth of the Internet and the fact that it is now possible to connect with international firms and also trade internationally far more easily. Whilst the physical movement of goods will of course always be subject to practical constraints such as access to infrastructure and resources, knowledge and data can flow freely across geographic borders, which in effect become nominal. It might therefore be reasonably argued that it would not be possible to critically investigate knowledge transfer, either forward or reverse in any meaningful way international basis until the Internet became as widespread and globally adopted as it has been. The internet can therefore be considered as a major contributing factor in the opportunities engendered international trade, and the capacity for GCC parent firms to reach out across borders and connect with subsidiaries to facilitate outward investment into developed economies; The purpose of which being to create opportunities for valuable knowledge capture and transfer in order to differentiate GCC firms in a competitive environment.

1.4.2 Context in the Literature

Suggesting or implying that the act of transferring knowledge between a parent and subsidiary directly increases the propensity for competitive advantage is a simplistic interpretation. Even if the mechanisms for knowledge transfer exist, and there is a willingness to transfer knowledge, it is still important to recognise the relative value and usefulness of knowledge to differing organisational entity. As established by Hislop et al., (2018), knowledge is contextual, meaning that it is acquired over time, through experience, and is relative to the circumstances of the individual, team, or organisation which has acquired and developed it. A willingness to share such knowledge, and an appreciation of the relative value of such knowledge fundamentally informs the extent to which knowledge can be used as a source of competitive advantage, whether in the short term, or on a sustainable basis.

The central conceptual distinction between developed and developing economies in terms of knowledge transfer and RKT is that the balance of power. Established, mature developed countries are considered to be powerful players on the world stage and the global economy. Furthermore, the vast majority of developing and emerging economies have taken their cue from developed economies in terms of economic structure and business models (Peng et al., 2017). This gives organisations in developed economies conceptual advantage over

organisations in developing and emerging economies on the basis that those firms in developed economies have a fundamental instinctive appreciation of the context of knowledge as a source of economic value. Developing and emerging economies certainly retain their own identity, but often turn to developed economies for examples of best practice. This gives developed economies and economic, social and some extent psychological advantage in terms of business negotiations. From there, the willingness to share knowledge is infused with a careful consideration of the ultimate end-use of this knowledge. Moreover, assumptions are likely to be made by the developed economy around the context of their knowledge. This represents a distinct influence on the way in which knowledge is understood, formed, and shared and also its likely respective value in differing cultural context.

At a more fundamental level, it is also important to consider the balance of power within organisations, as, in the words of Zelanick (1970, p.49), managers and senior executives without organisational power will find themselves unable to “*consolidate a workable definition of [their] responsibilities*”, an observation which remains as pertinent today as it did nearly 50 years ago. In practice, without the support of subordinates to actually carry out directives within an organisational context, senior managers can find themselves unable to consolidate or capitalise upon their power and/or exploit their power in order to further their careers or manage their position (Jermier et al., 1984; Clegg et al., 2006; Sloof and von Siemens, 2019). Within an organisational context, the terminology ‘knowledge is power’ has both literal and metaphorically meaning. Martinez et al., (2015) establish that within organisations, power in the form of knowledge can be held at junior levels, but typically by long-standing employees who have built a powerbase for themselves on the basis of their knowledge. This might be experience-based understanding of actions to take in particular circumstances, or an ingrained knowledge of operational processes which give an innate understanding of how the organisation is performing in real terms. As Munduate and Medina (2017) note, senior executives who do not consolidate their power can find themselves judiciously *not* advised of such valuable information, which means that they can find themselves wrongfooted in attempts to push through their plans and objectives.

For organisations within the GCC, it is more likely than not that as expansion takes place, subsidiaries will be managed by family members or trusted advisers, who are close to the members of the parent organisation (Kneuer et al., 2019). The culture of the Middle East is such that much greater trust is typically placed in family members over and above foreigners even if such foreigners are proven professional managers or experts with years of experience

(Kneuer et al., 2019). This is a deeply embedded cultural norm, but has implications for the use of power, specifically within the framework of family dynamics, the acquisition of power, and its possible utilisation and/or exploitation. Dupuis et al., (2017) reveal that dynastic families typically adopt something of a strategic approach in terms of educating the generation in succession, in order to ensure that family members have a range of requisite skills and experience which will enable them to drive the family business forward. Such a dynamic can have both positive and negative repercussions in terms of respect and authority, and the symbiotic nature of family and business decisions.

Further, it is not unusual for family members to be given responsibility for subsidiaries owned by a GCC firm, which at face value would give an impression of an immediate willingness to share knowledge in order to further the benefits and growth opportunities of the parent company (Dupuis et al., 2017). However, it should not automatically be assumed that this is the case, and there can be sufficient dissatisfaction with the way in which the company has been run, or the perceived exile of working for a subsidiary in a remote location, which is sufficient to disturb the power dynamics, and lead to family members responsible for subsidiaries refusing to share power, or judiciously sharing some elements of information and carefully omitting others (Munduate and Medina, 2017). Furthermore, the current generation of young managers taking responsibility for family subsidiaries are likely to have been the first generation fully benefiting from the policies of overseas education (Kamenou-Aigbekaen and Thory, 2016). It means that they are likely to have a more cosmopolitan outlook than their parents, which may also impact upon approaches to knowledge sharing and power dynamics.

A further dimension to consider in terms of reverse knowledge transfer is the interrelationship of knowledge and power as external resources, serving as an extension of resource dependency theory. In essence, resource dependency theory argues that organisations are to a large extent reliant upon external resources to consolidate organisational success. One popular example which is often given is that of customer demand, an external resource, which when it grows, causes the organisation to grow without creating a symbiotic relationship. Applying the principle of external resources in this regard in respect of reverse knowledge transfer scholars such as Yamin (1999), Chen et al., (2012) and Pereira et al., (2016) explore important of external resource context and subsidiary knowledge transfer. Chen et al., (2012) argue that the critical importance of localised technological development as a building block to global organisational success. Pereira et al., (2016) have subtly differentiated findings insofar as they argue that in a contemporary organisational context, parent companies thrive more successfully

when their subsidiaries are thriving, implying that subsidiary growth is equally important to parent growth for mutual benefit.

With regard to the balance of power between subsidiaries and parent within the context of resource dependency theory, a number of scholars have evaluated the development of the parent-subsidiary relationship, with particular focus on the evolution of organisational knowledge as a source of competitive advantage. Although there is an understandable direct and possibly tacit assumption that subsidiaries benefit from the implied superiority of the parent, but Yamin (1999) counter argues that greater attention should be directed towards the role of product and service development within subsidiaries and the implications of this development for scalable organisational knowledge. Of particular interest to Yamin (1999, p.67) is the way in which subsidiaries develop localised products and services specific to their niche markets, which have the potential to offer “*cross unit capacities of scope*”. Although Yamin (1999) acknowledges that on the majority of occasions the parent firm will be responsible for determining whether business unit subsidiary innovation will have cross unit benefit, Yamin (1999) further contends that the origins of the subsidiary have a very significant influence on the extent to which their levels of innovation are adopted and transferred.

The implication is that the nature of the balance of power shifts depending on whether the subsidiary was clearly developed from parent origins, or whether the subsidiary was acquired when already mature. Yamin (1999) argues that the level of maturity of the subsidiary has a significant bearing on the technological advancement, which in turn influences product and service development and levels of innovation which have influence in the case of RKT. This might be summarised in more prosaic terms as mature subsidiaries having greater influence over the parent in terms of putting forward their ideas, assuming that the subsidiary is willing to do so. However, Wong et al., (2008) offer a somewhat different perspective to Yamin (1999) regarding the balance of power in knowledge transfer, suggesting that it is not a function of age or maturity, but relative overall perceived influence by other subsidiary units in relation to the parent. The implication of the research of Wong et al., (2008) is that inter-subsidiary information and knowledge transfer is contingent on the perceived balance of power between subsidiaries as well as between subsidiaries and parent.

Whilst Wong et al., (2008) found mixed evidence in support of this interpretation, it is not an unreasonable conclusion, particularly if a parent has acquired a mature subsidiary the purposes of particular knowledge or resources. It suggests that irrespective of the formalised nature of

the parent-subsidiary relationship, there is a tacit awareness of where a powerbase of knowledge might rest within the organisation globally which influences factors such as the depth, speed and detail of knowledge transfer. In turn this implies that the nature of reverse knowledge transfer is more complex and contingent on a wider range of factors than might necessarily be immediately obvious, necessitating a more comprehensive interpretation of the factors influencing all dimensions of knowledge transfer rivers, or otherwise.

The implications of the findings in the work of Wong et al., (2008) regarding relative interpretations of intra-and inter-organisational power are supported in the study of Chen et al., (2012, p.259) who refer to the “*powerplay*” between key actors - specifically in this study a parent to subsidiaries of a multinational firm. Focusing on the role of resource dependency and the unique resources which are subsidiary hold (typically access to local networks and valuable local market knowledge) subsidiary can in the short run leverage these relationships in order to capture greater resources from the parent. As Chen et al., (2012) determine, however, this is not a ‘game’ which the subsidiary can play for long and expect the parent not to notice or potentially even punish the subsidiary for attempting to supersede the position of the parent firm in the global hierarchy. This is analogous to a parent-sibling relationship, which perhaps describes the nature of power balance and resources between parent and subsidiary quite accurately.

Even though it may sound counterintuitive to suggest that a parent firm would not seek to actively support the subsidiary at all times, the evidence produced by Chen et al., (2012) suggests this is the case, pointing strongly towards a significant mediating influence of individual personalities within the parent and subsidiary organisations vying for power with one another on the basis of valuable knowledge as the main currency. One possible factor to take from this interpretation of Chen et al., (2012) is the specific cultural dimension, and the role of formal and informal relationship networks particularly in regard to leverage and power from local resources. Other studies such as Bengoa and Kaufmann (2014) and Peng et al., (2017) reveal that particularly for Western multinational parents seeking a foothold in Asian networks, establishing local partners is exceptionally hard, and it could be interpreted that the findings of Chen et al., (2012) are partially culturally specific appointment will be expanded upon later in this work.

Najafi-Tavani et al., (2015) adopt a UK centric approach using an analytic study of 183 organisations comparing the relative role and power of subsidiaries as compared to parents.

Similar to previous studies which have evaluated the contribution of dependency theory and network theory, Najafi-Tavani et al., (2015) that where subsidiaries are able to offer up knowledge which the parent considers valuable through RKT, this increases the standing of the subsidiary in the eyes of the parent, and also to some extent in the eyes of other subsidiaries of the parent, although there was some latent implication of subsidiary rivalry analogous to that of sibling rivalry. Although not explicitly tested, it might be suggested that indirectly parent firms are using RKT as a form of motivation through competition to encourage subsidiaries to share greater information and achieve recognition. Najafi-Tavani et al., (2015) acknowledge that it is not a straightforward relationship and a mediating variable is extent to which the subsidiary is embedded in its own marketplace relative to direct competitors. It suggests that effective RKT is contextual in both temporal and geographical terms relative to the overall relationship of power between the parent and subsidiary.

More recently, Pereira et al., (2016) have examined a unique dimension of the parent subsidiary relationship which is arguably an extension of the emergent work of Yamin (1999) and also Wong et al., (2008) regarding possession of resources. What Pereira et al., (2016) reveal is that in specific instances there is a shift in the dynamics of power between a parent and subsidiary where ultimately the parent becomes resource dependent on the subsidiary and specific capabilities, knowledge or resources which the subsidiary possesses. This appears to be a relatively novel dimension to RKT and is possibly contingent upon wider contextual circumstances, something noted by Najafi-Tavani et al., (2015). To provide an example, Asia is overtaking the West in certain aspects of technological development, and also access to local networks for cost efficient production which would explain how the balance of power shifted between parent and subsidiary, relative to context. Arguably this would not have been as likely even 20 years ago, when Asian firms were still in the early stages of acquiring knowledge from Western counterparts, but now this situation has the potential to reframe the balance of power between a parent and subsidiary and potentially recast the relationship.

1.4.3 Choice and Justification of Main Theories Used in the Research

The two main theoretical constructs applied in this research are that of the social psychological lens, and the knowledge-based view. These theories have been selected because of their enduring utilisation efficacy in knowledge-based research on an inter and intra-organisational basis, and, it is argued by Nair et al., (2018) that the two theories are mutually complimentary, helping to explain the generation of knowledge within organisations as a source of competitive

advantage, and also the ways in which knowledge is shared within organisations enabling firms to benefit from the unique source of differential value - i.e., knowledge.

In brief, the knowledge-based view holds that knowledge is one if not the most valuable unique resource organisation can possess and generate (Hörisch et al., 2015). Organisations can generate non-imitable value from knowledge if they are able to use the insights of their employees, consolidate and arrange these insights, and apply these insights in order to differentiate themselves from competitors. To this end, it is impossible for an organisation to benefit from any knowledge contained within it, unless there is effective communication between individual employees, departments or subsidiaries in possession of the knowledge. Moreover, knowledge is contextual and there is a potential for multinational firms to benefit from valuable knowledge obtained in one part of the business, and apply this as an entirely novel construct in another part of the business, thus providing a further layer of differential advantage. The knowledge-based view provides a means to understand how knowledge is generated within a firm, and also how it is used to secure competitive differentiation.

The social psychological view or lens (Zittoun and Perret-Clermont, 2009), examines different perspective of knowledge, specifically, the tacit factors necessary for individual employees within an organisation to willingly share their knowledge in full, and in context. The basis of the knowledge-based view is that knowledge lacks value without context and communication, which is leads to the questions of why and how of knowledge transfer. In essence, under the social psychological view, there must be trust, a willingness towards social exchange, and frictionless communication between the sender and the receiver of such knowledge in order for all parties to benefit. Thus, the application of both the knowledge-based view and social psychological view explains not only how organisations generate knowledge, but also how they benefit from knowledge transfer on an internal basis. The adoption of both of these theoretical constructs in a mutually complementary way was therefore considered to be ideal practical use to understand the question of RKT in a novel application.

In addition, at present there is a paucity of research which is linked these two complementary theoretical constructs and apply them in practice. As such it is proposed that alongside the practical contributions of this research, the unique application and extension of these theoretical constructs makes a valuable contribution to the body of knowledge regarding RKT from developed economies to emerging economies through the conduit of subsidiaries in multinational firms.

A final point on the truth and justification of the main theoretical constructs discussed and applied within this thesis, one theory which may have been relevant, but was ultimately not utilised with the theory of *Technology Transfer* first presented by Wildman et al., (1988). Wildman et al., (1988) were early critics of the presumptive approach of much of Western theory in alternative sociocultural contexts, stating that “*Western knowledge transfer activities have come under increasing criticism in recent years for bringing about disintegration of indigenous [sic] cultures and lopsided transformations of social environments in many parts of the developing world*” (1988, p.88). As a part of their research they proposed an index for measuring the transference of novel technological constructs. Whilst there is an obvious link between the proposition of this paper, and the nature of this research the suggestions posed in the paper of Wildman et al. whenever widely adopted, and ultimately it was considered preferable to focus on more robust and supportive theoretical constructs which were more likely to make the output of this research meaningful and beneficial in terms of both theoretical contribution and practical application.

1.5 Research Contribution

The unique contribution of this research is that it looks at RKT from developed economies back to developing and emerging nations. Specifically, attention is directed towards the three dimensions of (1) willingness to share knowledge; (2) trust in sharing knowledge; and (3) the context of sharing knowledge. It is well documented that established mechanisms for knowledge transfer and also RKT exist, although they are more usually recognised in relation to subsidiaries in developing economies sharing knowledge with parent companies in developed economies; principally for the purposes of parent companies in developed economies exploiting the few remaining untapped market places. In the converse relationship, wealthy developing economies such as those within the GCC capturing and utilising knowledge from subsidiaries in developed economies there is a difference in the relationship in terms of the balance of power. Of particular interest to developing economies is understanding how they can leapfrog some of the learning challenges experienced in developed economies, building on the work of Fu et al., (2018) who examine how parent firms in emerging economies have developed a multi-tier model of RKT, and Luo and Tung (2018) who examine the role of national context in RKT.

It is already well documented that mediating factors impact and influence the efficacy of RKT, but it has only become apparent in more recent years that RKT when the parent is in a developing economy the extent of influence of mediating variables can have varying significance. Or, in plain terms, effective RKT whereby the parent benefits from the knowledge is likely to be contingent upon a complex interplay of factors. The state of knowledge in this specific field is developing and expanding all the time as developing and emerging economies begin to accelerate their economic growth, and developed economies mature and even begin to decline (e.g. Greece). The unique contribution of this research is that it focuses specifically on the mediating variables which impact RKT with respect to parent firms in the GCC region.

Historically, research into organisational knowledge transfer has focused very much on knowledge flowing from parent in a developed economy to a subsidiary in a developing or emerging marketplace. Usually assumed to be because the parent firms seeking to penetrate new marketplaces of which they can have early entrant advantage or because they particularly want to harness resources cost effectively, under internationalisation theories (Peng et al., 2017). In such research, it was typically assumed that the parent-subsidiary relationship was analogous to that of the relationship between a parent and a child, something implied in much of the research scholars such as Wong et al., (2008) and Chen et al., (2012). Examples of this including the parent carefully distributing sufficient information resources in order to enable a subsidiary to perform well, but not so well they could overtake the parent in the nature of their operations.

Over time, the idea of RKT has gained traction, as parent firms recognised opportunities for market differentiation. Examples of included using subsidiaries to obtain access to local networks, something which the parents themselves could not easily do due to lack of knowledge. Also, localised information regarding market preferences and theories of international marketing specifically focused particularly on the idea of localisation as a way to penetrate international markets, but with specific knowledge of subsidiaries or joint ventures in various forms (Peng et al., 2017; Nair et al., 2018). As a consequence, research into RKT remains relatively new, and initially was templated on the same basis as knowledge transfer theory, assuming a power imbalance between the parent and subsidiary in favour of the parent.

However, as globalisation has become more prominent, scholars have begun to look at the impact of RKT from subsidiaries in both developed, and developing marketplaces, determining, for example in the work of Van Wijk et al., (2008) and Ambos and Ambos (2009)

that contextual embeddedness is critically important. Some scholars have begun to evaluate the way in which multinationals are headquartered in developing economies are expanding internationally, and in effect, harvesting knowledge and information from their Western subsidiaries or alliances. The studies such as that of Luo and Tang (2007; 2018) have found that there is a subtly differentiated approach to RKT in these circumstances, largely because the parent in the developing or emerging economies is specifically interested in intangible resources such as information and knowledge, more so than any other form of resources.

This is not entirely consistent with resource dependency theory which holds that it is the organisation of resources (tangible or otherwise) that create competitive advantage (Grant, 1996a; 1996b), suggesting that there is more to explore in regards to not only the nature of the relationship between parent and subsidiary in the circumstances, but also the way in which knowledge is transferred, and the reasons for the parent wanting the knowledge in any event. There is an inferred air of superiority associated with the parent-subsidiary relationship where the parent is Western-based, something which Bendo and Kaufmann (2014) explicitly question, and this can be drawn out of evidence found in a number of historic papers. This main part be on the basis of context, and the writing style of the time may also, however, reflect a paradigm shift as firms in developing and emerging economies begin to expand across the globe, and these firms are confident in their financial resources, and the growth of the Asian economy as the Western economy begins to stagnate.

Thus, developing nations acquire their own wealth and look to expand internationally, globalisation creates opportunities for RKT from developed nations back to developing nations. As the evidence currently shows, the success of RKT can be mixed (Peng et al., 2017), indicating that deeper research is required. As the economy of the GCC continues to grow rapidly, along with it that finance sector. Whilst much of the finance sector in the developing world remain stagnant, this reversal of the normal assumed flow of knowledge is likely to become more widespread. The growing popularity of sharia finance in the UK being one example, although there are direct contradictions in as far as culturally and contextually, differing consumer groups feel strongly about the expansion of sharia finance although for different reasons. Industry research in the finance sector suggests that there is huge scope for expansion of sharia finance, implying that there is an opportunity for GCC parent companies, but at present there is a lack of understanding as to how this can be properly utilised. This is different from parent companies in developed economies imposing their will on subsidiaries in

developing economies, for example the expansion of service firms and mobile phone companies.

It is posited as part of this research, there remains a lack of understanding around the potential value and importance of context in RKT from developed economies back to developing ones when there are differences in the power balance. It is contended that this is not currently fully explored in the literature, and thus represents a research gap.

In investigating this research gap, this thesis makes both theoretical and implied empirical contributions to the state of knowledge. With regards to the theoretical contribution, predominantly evaluated through the social psychological lens, this thesis argues that there are factors specific to GCC headquartered firms with regards to the capture of the knowledge from international subsidiaries which distinguish the relationship of RKT and increased efficacy. These theoretical contributions revolve around the intertwining of trust and organisational culture, which it is argued in this thesis is specific to the GCC in the way in which GCC based firms have a differentiated approach to organisational structure and management. This approach goes towards paternalistic, which whilst this would be disliked and discouraged in Western cultures but works effectively in GCC culture as this also strongly encourages trust. In addition, as will be discussed in this thesis, one of the reasons why subsidiaries may withhold knowledge is because they are led to perceive that they are in some way lesser. The relationship of trust and culture in GCC parent firms counteracts this, as evidenced in the empirical data, and thus contributes to the applied aspect of knowledge and the contribution of this research. The empirical contribution is the demonstrable effect of trust and culture on both the willingness to engage in RKT, and its efficacy.

In addition, this study reveals that national culture and the existence of close social ties between the parent and the subsidiary because of both national and organisational culture positively enhances the presence of social equity which in turn means that it is far more likely that subsidiaries will (a) share their knowledge in full and in a timely manner and (b) that the knowledge will be contextualised in order to generate greater differential or competitive value. As alluded to previously in both *section 1.4.2* and *section 1.4.3*, knowledge is contextual, and one of the constructs of the knowledge-based view is that firms which are successful in both the generating and transferring knowledge internally show the context of the knowledge in order to enhance its value. This study finds that there are features and facets unique to the culture of GCC parent firms which struck the bond of social equity, thus making knowledge

transfer more effective. Furthermore, knowledge transfer is identified as being more effective, because of the context of knowledge transfer but also critically the speed at which knowledge is transferred, i.e., as soon as it becomes available or apparent, which in turn enhances the value of knowledge for the parent firm. **Table 1.2** summarises the types of knowledge transferred, with examples.

TABLE 1. 2 TYPES OF KNOWLEDGE TRANSFERRED

TYPES OF KNOWLEDGE TRANSFERRED		EXAMPLES
Formal		
	Training and development	In house or external training courses, often with certificate of completion
	Coaching and mentoring	Structured and planned coaching initiatives
	On the job training	Dedicated practical training
Informal		
	Discussion with colleagues	Spontaneous discussion / help from colleagues
	Self-directed learning	Employees pursue own learning from self-interest

Dalkir (2018) and Hislop et al., (2018) assert that the efficacy of knowledge transfer is grounded in a tripartite approach of people, process and systems. In effect, people need to be in possession of knowledge, and willing to share it, they need mechanisms to do so (process) and there needs to be a system in place which ensures that people use the process. Theoretical constructs regarding this tripartite approach to knowledge transfer make a compelling case for its existence the basis of effective knowledge transfer, whether forward or reverse. However, the empirical studies discussed in this thesis reveal more mixed evidence in the sense of whilst organisations believe that they have genuine processes and systems in place to encourage and support knowledge transfer, these are seldom as well used as the theory would suggest. The explanations for this use, or lack thereof in terms of knowledge sharing more readily, are understood through the social psychological lens, and the extent to which individual employees are in possession of knowledge, willing to share it, and believe that their knowledge is valuable.

In effect the tripartite approach only works when there are further tacit or cultural aspects underpinning the existence of processes and systems in the first instance.

Moreover, it might be reasonably suggested that unless a firm has a culture which values knowledge, whether from the parent or the subsidiary, then it is less likely processes and systems will exist in any event, and certainly less likely that people will use either or both. To this effect it is suggested that whilst from a theoretical standpoint a tripartite approach to knowledge transfer would be ideal, for a more complex array of reasons related to human and social cultural behaviours, it is less likely that this theoretical proposition will effectively manifest itself in practice. This is not the same as saying that it could not exist, and undoubtedly many firms would prefer that you did, as in principle it is the most judicious way of capturing and sharing knowledge effectively and benefiting from its existence.

However, tacit cultural factors, and social norms and behaviours are likely to inhibit the near existence of processes and systems as one aspect, and, it is also another problem entirely as to whether or not people will use processes and systems to their fullest extent particularly not if they do not feel that themselves, although knowledge is not valued. Furthermore, even if people do share knowledge through the existence of processes and systems, this also presumes that the knowledge is contextually understood, another stumbling block in the efficacy of a tripartite approach. To this end, this study does not find compelling evidence for the reliable utilisation of a tripartite approach, even though it is accepted that as a starting point for knowledge transfer would in principle be the most effective framework.

CHAPTER 2: LITERATURE REVIEW

2.1 Definition of Knowledge

Knowledge is, paradoxically, both easy to define, but also extremely complicated. Henriquez (2013, p.1) has suggested that a working or everyday definition of knowledge can be understood as an “*awareness of or familiarity with various objects, events, ideas, or ways of doing things*”. However, as one of the founding theorists on the subject of knowledge management in the 20th century, Polanyi (1962; 1966) argued, knowledge can also be far more elusive. In Polanyi’s words (1966, p.1) “*we know more than we can tell*”. In epistemology for example, the discipline of searching for and understanding the structure of knowledge it is quickly recognised that what is knowledge to one-person means nothing to another. There is also a need to distinguish between the ‘what of knowledge, and the ‘how’. In the view of Alvarez (2016), this is the foundation for appreciating the role and function of knowledge in supporting organisational activities.

Hodgson (2017) and Rogan (2017) analysed the work of Polanyi regarding taxonomies of knowledge, reinforcing the view that knowledge can be broadly classified as explicit and tacit. These studies correspond with the work of Eastern businesses philosophers Nonaka and Takeuchi (1995), although the manner in which these conclusions are reached differs in terms of the inter-relationship of explicit and tacit knowledge. Explicit knowledge is inherently objective, ‘formal and systematic and can therefore be easily communicated and shared’ (Hussein and Wahba, 2003). Tacit knowledge, alternatively, is subjective and practical, ‘it is highly personal, hard to formalise, and therefore, difficult to communicate to others’ (Hussein and Wahba, 2003). In spite of this juxtaposition, Sveiby (1997) posits that significant knowledge, by definition must be tacit in nature, originating from within the subjective views and experiences of the individual and as a result, constantly changing. In organisational environments, explicit knowledge is codified, reflecting the culmination of policies, practices, and value systems that are universally shared throughout the corporation (Busch, 2008). Alternatively, tacit knowledge is held individually, shared inequitably, and subject to the capacity for transfer and absorption that is unique to the organisation and its internal systems (Busch, 2008).

Throughout the field of knowledge theory and research, there are two competing, yet overlapping dimensions: the origination and protection of knowledge (knowledge

management), and the exchange and transfer of knowledge resources (knowledge transfer). Knowledge, 'one of the most strategically important resources of a firm' is 'generated and held by individuals and applied to the production of goods and services through the coordination facilitated by the firm' (Ganco, 2013). Within this creation process, knowledge management outcomes are affected by three iterative processes including creation, retention, and transfer, each of which contributes to the determination and inference of significance and value (Argote et al., 2003). From an organisational perspective, affective factors including geography, specialisation, and time have direct influences on the transference of knowledge and the overall effectiveness of managerial practices and policies (Makhija and Ganesh, 1997). Internal control processes such as information resources, procedural guidelines, and access restrictions determine the relative freeness and efficiency of knowledge exchange, either supporting or inhibiting the end objective of the organisation: the practical resolution of asymmetry versus needs in knowledge management (Makhija and Ganesh, 1997). This tension ultimately determines both the absorptive capacity of knowledge recipients and the sending functions and responsibilities of the knowledge holders within any distributed network or organisation.

For companies, knowledge serves as the compartmentalisation of specialised skills and competencies, dimensions of competitive advantage which Teece et al., (1997) associate with differentiation and capacity development. The relative value of knowledge is affected by the status and legitimacy of the sender, properties that affect power relations and ultimately determine the underlying advantages of absorption and assimilation (Argote et al., 2003). For many organisations, however, Goh (2002) acknowledges that in order to facilitate knowledge transfer, a centralised problem-solving or problem recognition approach must be adopted. The expectation is that without creating the conditions in which knowledge can flow between organisational branches (or partners), firms are more likely to protect and control their knowledge, limiting the degree of sharing and open exchange (Goh, 2002).

2.2 Characteristics of Knowledge

Sveiby (1997) outlines some of the core characteristics of knowledge, arguing that these characteristics are transferable, and have generalisable applicability. He summarises these characteristics of knowledge as being:

- The importance of context in knowledge, in as far as knowledge facilitates sense-making in an organisational context;

- Knowledge has the potential to increase efficiency and effectiveness, provided that it is applied;
- That knowledge develops through experience and learning, and that knowledge is also dependent upon knowledge transfer mechanisms and opportunities for learning, as well as a willingness to learn on the part of the individual;
- That knowledge is typically difficult to codify, capture, transfer and disseminate;
- That the perceived value of knowledge may develop or even diminish over time.

Sveiby (1997) also argued that the creation and dissemination of knowledge can be enhanced with technology. Further, Sveiby (1997) distinguished between ‘information’ and ‘knowledge’ within the context of organisations and both are important as supporting organisational growth and development, as both information and knowledge must be captured and shared in order to maintain consistency in organisations, such as consistency in the quality of products and services produced or provided (Ipe, 2003; Hislop et al., 2018). The way in which knowledge is captured and shared, and particularly the value attributed to knowledge explains why parent firms may actively seek to capture knowledge from their subsidiaries and in turn obtain value and benefit from the application of such knowledge.

Expanding on the work of Sveiby (1997), subsequent scholars have focused on varying aspects of the role and relevance of the characteristics of knowledge within the context of organisations, collectively demonstrating how a variety of mediating factors impact aspects of knowledge within organisations. For example, Alavi and Leidner (2001) conceptualised the notion of Knowledge Management Systems (KMS), which centred around the utilisation of then nascent technology to support the capture and transfer of knowledge inter and intra organisations. Adopting an alternative perspective, Foss and Pedersen (2002, p.49) concentrated on examining [levels of knowledge in subsidiaries, the sources of transferable subsidiary knowledge and on the organizational means and conditions that realize knowledge transfer as the relevant determinants.] As opposed to the characteristics of knowledge which until this point in much the discussion had been favoured as the main determining variable in effective knowledge transfer. Foss and Pedersen (2002) demonstrated support for the hypothesis that levels of knowledge, and also the means and conditions of realising knowledge transfer are as, and in some cases more important than the characteristics of knowledge originally favoured by Sveiby (1997).

Examining yet another dimension of knowledge transfer, Chen (2004) evaluated absorptive capacity, the explicit nature of knowledge, and mutual firm alliances, also demonstrating across 137 cases, that aspects of the characteristics of knowledge transfer are an important consideration in the efficacy of the same. Dhanaraj et al., (2004) examined inter-firm alliances through the lens of explicit and tacit knowledge, particularly focusing on the strength of connections between parents and subsidiaries, and also the age of the organisational alliance as they found that the nature of the relationship in terms of age served as a mediating variable as trust took time to acquire (and as previously demonstrated through numerous studies, trust is imperative for there to be confidence in the capacity of knowledge transfer irrespective of whether it is forward or reverse).

However, some 10 years after the publication of Sveiby's (1997) work, during which time there appeared to have been a gradual drift away from the centrality of the characteristics of knowledge as a driving factor in the efficacy of knowledge transfer, a seminal paper by Minbaeva (2007) revived support for the view that the characteristics of knowledge, as originally defined by Sveiby (1997) are absolutely critical to the positive outcomes knowledge transfer. Minbaeva (2007) also extended Sveiby's (1997) work, demonstrating that individual agency, or the characteristics of the individuals in possession of knowledge within organisations is also an important consideration in the efficacy of knowledge transfer. Pérez-Nordtvedt et al., (2008) went on to particularly focus on the nature of individuals and individual relationships in the efficiency of knowledge transfer in relation to cross-border knowledge transfer activities. Similarly, Minbaeva (2007), Nordtvedt et al., (2008, p.714) found that the role of individual agency is an important mediating factor and established that "*recipient learning intent and source attractiveness positively impact the effectiveness of knowledge transfer*".

What might therefore be determined from these seminal papers, is that multiple factors can be shown to influence and impact both the efficacy and efficiency of knowledge transfer, forward and reverse, and thus in order to have a robust understanding of the strength of impact of distinct variables in relation to the knowledge transfer relationship, it is also important to contextualise the nature of the relationship between the parent and subsidiary, as this is shown consistently in literature to be foundational element which informs multiple other aspects of knowledge transfer such as the individuals responsible for knowledge transfer, the way knowledge is captured and framed, and also the willingness to engage in the process of

knowledge transfer. Practical factors such as cross-border acquisitions and the age of parent-subsidiary relationships are also potentially influential considerations.

Existing literature concurs on the fact that knowledge that is attractive and relevant creates pull factors from the HQ, which is the main recipient (Brcic and Mihelic, 2015). This robustness of the pull factors is dependent on the uniqueness and relevance of the knowledge (Nair et al., 2016). Martin and Salomon (2003) referred to the existence of such pull factors as being represented by the absence of causal ambiguity. Causal ambiguity is the uncertainty associated with the underlying rationales and how specific concepts of the knowledge are related to competitiveness within the HQ. Knowledge is indeed a very significant tool that should be transferred to the parent. Even then it is not just any knowledge that is transferrable to the parent. The knowledge itself must be highly relevant and in line with the objectives of the parent. This means that there should be some sort of connectedness between the knowledge at the subsidiary with what the aim or the goals of the parent are. Martin and Salomon (2003) indicate that causal ambiguity is thus a key determinant of value, which can be location and time specific.

With regard to the transfer of tacit knowledge to the HQ, causal ambiguity is exclusively a source of negative influence and barrier to the transfer of knowledge (Kunc and Morecroft, 2010). Component ambiguity refers to the challenges in handling the knowledge due to its 'tacitness'. As a result, the ability to communicate the knowledge is reduced. According to Silveira, et al., (2016), component ambiguity is pervasive, since it can occur if the subsidiary or HQ has no idea how to use the knowledge. Gupta and Govindarajan (2000) examine characteristics of knowledge in relation to knowledge flows from subsidiaries to parents, establishing that the characteristics of knowledge are predictors of speed and richness of knowledge. Interestingly, however, motivation to acquire knowledge on the part of the parent varied considerably. It is therefore posited that the key conceptual difference in this scenario of RKT, is that the parent company in the GCC actively seeks and values the knowledge from the subsidiary. This differs from the reverse situation where historically, the parent in the developed economy has been dismissive of the value of the knowledge from a developing economy, tacitly perceiving that it could not be that useful (e.g. Inkpen, Empson, 2001; Szulanski, 2002; 2000; Singh, 2007).

According to Turner and Petrunin (2015), each and every subsidiary has an unspecified amount of tacit knowledge at any point in time. Bolisani and Handiz (2015) endorse the idea, by stating

that within the framework of a team, it is possible to unlock some of these elements of tacit knowledge thereby making them relevant, viable and valuable. The ambiguous nature of tacit knowledge has a significant and adverse impact on transfer from the subsidiary to the HQ. Cappetta and Jensen (2004) indicated that causal ambiguity could be mediated by trust between the source and destination of knowledge. However, trust can also result in adverse outcomes when causal ambiguity exists. For instance, processes with high causal ambiguity may be performed incorrectly since the recipient sees no need for validating the accuracy and suitability of the knowledge.

The challenges in the acquisition and transfer of knowledge are perceived as costs, based on the fact that knowledge has economic value. The increase in these costs influence the value of the knowledge, but more relevantly, they determine the stickiness of the knowledge. Martin and Salomon (2003) define stickiness as the tendency of knowledge to flow sluggishly within the organisation. Stickiness is associated with the tacitness of the knowledge, in addition to other determinants. The stickiness of tacit knowledge is attributable to the intrinsic nature of the knowledge (Schuller, 2017), the nature of the transfer process (Szulanski et al., 2014), or the characteristics of the situation, as defined by other exogenous factors (Mudambi and Navarra, 2004). Szulanski et al., (2014) sought to identify the operative indicators of stickiness and concludes that each of the four stages of transfer can generate stickiness in tacit knowledge transfer. A positive and favourable relationship between the source and recipient of knowledge encourages reverse knowledge transfer and reduces stickiness.

2.3 The Key Features of Knowledge Transfer

Osterloh and Frey (2000) explain that in any industry competitive advantage is based on access towards new knowledge and its effective transfer. The transfer of knowledge results in accessibility based on the knowledge-driven characteristics of any organization. The Knowledge Transfer phenomenon involves the knowledge passing from knowledge holder to knowledge recipient. The knowledge holder is the organization or individual possessing knowledge; whereas knowledge recipient is the organization or individual that receives the knowledge. This transfer process is undertaken through the Knowledge Transfer process. Below the two main features of Knowledge Transfer will be considered: they are uncertainty and innovation and knowledge

Uncertainty

Generally, uncertainty refers to the ambiguity and doubtfulness attitude of an individual or individuals. In Knowledge Transfer MNE, it is difficult to avoid uncertainty because of a dynamic environment. For instance, the culture of one country differs from another country; thus, the people, management tools, tactics and behaviour differs from one to another, which results in cautiousness in cross-border contacts. Moreover, in Knowledge Transfer the uncertainty may also occur because of receiver insufficiency towards absorptive capacity (Schuster and Hunter, 2016). A firm operating internationally faces the difficulty of identifying, assimilating, transforming and applying valuable knowledge because of cultural differences. But being successful in negotiating difficulties foreign knowledge spillover allows the firm to become more innovative through exchanging technological and operational capabilities for better managerial outcomes (Chen, Li and Shapiro, 2014). Therefore, this shows that in cross-border international Knowledge Transfer uncertainty allows becoming proactive and it helps in dealing with technological changes to develop information system capabilities and relationship capabilities through leaving the old patterns behind and creating an environment where partners are trusted in order to minimize the level of ambiguity (Schuster and Hunter, 2016).

Hence, uncertainty can hinder the effective transfer of knowledge different entry mode types, which decreases overall business effectiveness due to geographical and language barriers (Larimo, Le Nguyen and Ali, 2016). Training allows employee to develop cross-border relationship capabilities and understand and respect cultural differences enabling knowledge can be assimilated, which benefits in organizational productivity (Argote and Fahrenkopf, 2016).

Innovation and knowledge

Knowledge Transfer results in the technological capability development of companies. In this regard, the goal of any firm is to think beyond producing goods and services. Multinational organization is liable to promote technological changes and innovation within subsidiaries across the globe. Knowledge Transfer within and across borders promotes the technical changes making for better operations, transactions and management of the business (Zawislak et al., 2012). According to Estrada, de la Fuente and Martín-Cruz (2010), developing new

technological capabilities in isolation is impossible and often expensive for companies. On the other hand, acquiring the technological capabilities of the parent company is more convenient and faster. The MNEs that engages in technological collaboration is the result of managers realizing the importance of technological innovation (Andersson, Dasí, Mudambi and Pedersen, 2016). Inter-organizational linkage among companies encourages the technological alliances for the sharing of resources and capabilities. Therefore, innovation and Knowledge Transfer in cross-border interaction allow the developing of technological capabilities transferred by parties. In the Knowledge Transfer process innovation and knowledge are important because they allow the sharing of technological resources, which enhances the speed of technical capabilities development. The rapid development of technologies allows enhancing the processes used by companies and upgrading their transaction process (Lynch and Jin, 2016). Moreover, the rapid changes and technical capabilities development in Knowledge Transfer allows employees to enhance their competence level to overcome with an operational barrier.

2.4 Knowledge Transfer Infrastructure

Subsidiaries face challenges when it comes to determining the value of the knowledge that they possess. This is because sometimes they are not in so much communication with the parent on constant basis. It could be because the parent tends to perceive it to be to be a low market resource and therefore does not find a reason to share so much about the knowledge that it possesses. In the case of individual knowledge transfer, Osterloh and Frey (2000) argue that some individuals are more predisposed to knowledge transfer than others. The predisposition is influenced by motivation and ability, which is why Najafi-Tavaniet al. (2015) and Schuller (2017) concur that HQs should consider extrinsic or intrinsic rewards systems to motivate and enable individuals, teams or subsidiaries to transfer knowledge to the HQ. Motivation and rewards have always served a great role in the boosting the morale of any employee in the world today. Therefore, if it is also used properly in this case, it could help a great deal in seeing to it that at the end of the day there is efficient transfer of knowledge from the subsidiary to the parent. It could also see to it that there is relevancy in the knowledge that is transferred.

The existing reverse knowledge transfer literature focuses on two levels: the macro and the micro levels. At the micro-level, the determinants are based on the manner in which employees, who are the ultimate source of tacit knowledge, are treated by the managers of the subsidiary. Normally, tacit knowledge is transferred through individual who transfer personal knowledge

to individuals or teams, or team projects, whereby a group of individuals transfer the collective knowledge to other teams or an individual. This distinction is integral in appreciating reverse knowledge transfer since, in the case of collective knowledge transfer, there is a need for coordination and management of the team members (Johnson, 2005), who possess different elements of the knowledge (Turner and Petrunin, 2015). In the case of GCC, subsidiaries in the developed countries have to be able to play a role within the MNE to ensure that it influences the RKT to the parent in the GCC.

2.5 Knowledge Transfer in MNEs

Knowledge transfer in multinational organisations or enterprises (MNEs) is an area of research which has been widely studied (Tallman and Chacar, 2011). Strategically, when organisations expand internationally, they typically seek some form of alliance relationship with an organisation native to the country which the MNE is expanding into (Minbaeva et al., 2003; Minbaeva, 2007; Teigland and Wasko, 2009). The purpose of this is to obtain at least some basic knowledge around the local market and also to navigate local legislation and regulation. In some circumstances it is mandated that foreign parent cannot have an independent trading entity in some countries, meaning that a strategic relationship some variety is mandated (Persson, 2006). What MNEs are buying therefore when they form such relationships is knowledge and/or access. More sophisticated organisations recognise that there are localised differences in markets, the knowledge of which can be used as a means of expanding market penetration and securing competitive advantage through enhanced market share. Until relatively recently, knowledge was predominantly assumed to flow from the parent to the subsidiary, on the basis that the larger, more mature and more technologically sophisticated parent would have knowledge that the subsidiary would find useful for an expansion (Mudambi and Navarra, 2015). Furthermore, it would suit the parent company to ensure consistency of service provision, and so impose their knowledge on the subsidiary.

Research confirms various mechanisms for transferring knowledge from a parent to a subsidiary, including specialised training (Song, 2014), documented knowledge transfer (Hislop et al., 2014), and also quite often expatriate placement (Caligiuri, 2014). More fundamentally as an antecedent to transfer mechanisms is the existence of absorptive capacity. Defined by Cohen and Levinthal (1990, p.129) as “a firm’s ability to recognise the value of new information, simulated, and applied to commercial ends”, absorptive capacity is

reasonably concluded as being fundamental in the process and ultimate outcome of knowledge transfer, reverse or otherwise. Studies by Chang et al., (2012) as well as Nair et al., (2018) confirm the influential role of absorptive capacity in terms of the subsequent capability of organisations to exploit their collective knowledge and differentiate themselves in a competitive marketplace.

Research into the role of expatriates as knowledge transfer mechanisms from parent to subsidiary established some time ago that contrary to the attitude of ‘parent knows best’ the most successful expatriates assignment with those where the individual expected in question had exceptional communication skills, a willingness to learn, and gain the trust of those in the subsidiary who would then share their knowledge and reciprocal learning and knowledge exchange would take place (Reiche, 2011). Organisations which recruited and utilised such employees who are more flexible and willing to learn have fared far better in terms of knowledge transfer. Particularly in the case of attempting to accelerate or leapfrog several years of organisational development and ‘kick-start’ the operations of the subsidiary.

In recognition that knowledge is inherently tacit, a great deal of research attention has been focused on the mechanisms of knowledge transfer and subsequent utilisation of knowledge which has been transferred relative to the context into which the knowledge has been transferred (Muthusamy and White, 2005). It is recognised in research knowledge does not necessarily in fact seldom directly translate, because knowledge is contextually embedded (Bock et al., 2005). In turn, this raises questions around confidence in the capture and transfer of knowledge, and also in its dissemination, utilisation and ultimate exploitation in order to secure competitive advantage (Bock et al., 2005). Furthermore, organisations are dynamic as are their environments meaning knowledge is perpetually evolving and this must also be factored in to the efficacy of knowledge transfer.

However, as Minbaeva et al., (2014) recognise, within the research and lived experience of knowledge transfer scenarios, there is an inherent belief in the idea that the knowledge of the parent is more valuable than knowledge of the subsidiary. Whilst parent companies report they are interested in the knowledge of their subsidiaries, Minbaeva et al., (2014) contend that there is less tangible evidence of this in practice. Particularly on the basis that organisations still use international assignment as opportunity to move out troublesome employees (Caligiuri, 2014), rather than benefit from the opportunity. The distinct conceptual difference of this research is

that the parent company is genuinely interested in extracting knowledge from the subsidiaries suggesting that the balance of power is different in this relationship.

2.6 Reverse Knowledge Transfer in MNEs

As implied in the seminal work of Kogut and Zander (1992), but not explicitly examined, is the paradox of organisations being able to use more of the knowledge they ought to have as they expand, especially internationally. As such the process of ‘reverse knowledge transfer’ RKT is in working terms the ‘reverse flow of knowledge’, either ‘bottom-up’ within organisations, or, more widely, from subsidiaries back to parent companies. The purpose of the process is to enable those responsible for strategic decision making within organisations to use valuable ‘front-line’ knowledge to best effect. One simple example is offered by Khan et al., (2015b), who explain that those employees at the bottom of the organisational hierarchy are more likely to be interacting with customers every day, and so have invaluable tacit knowledge of the state of the marketplace, and quite possibly by induction, the activities of competitors. It is an example of Polanyi’s puzzle that people have more knowledge than they are able to fully explain. By passing this knowledge back up the hierarchy in a reverse knowledge transfer, those in tactical and strategic positions can, theoretically, make better decisions, provided that the knowledge has been accurately and fully captured.

The global distribution of knowledge resources in MNEs has the potential to be both an advantage and a limitation for corporate growth and performance. Chung (2014) observes that by effectively managing the ‘reverse transfer of local knowledge, technologies, and management capabilities throughout the company as a whole’, MNEs are able to gain competitive advantages and effectively coordinate global strategy. Characterised by Oh et al. (2016) as local market information (LMI), subsidiaries are likely to develop tacit knowledge that is based upon regionally specific operations, experiences, and resources. If overseas business units are able to gain access to unique, tacit information that is otherwise inaccessible, then companies are able to achieve competitive advantages that are based upon the uniqueness, value, and specificity of the attained knowledge resources (Oh et al., 2016). Described by Driffeld et al. (2016) in terms of globalisation as ‘reverse spillovers’, it is the overall efficiency of the reverse knowledge transfer process that ultimately determines the usability and value of the knowledge resources.

Underscoring the decision or motivation to transfer knowledge from subsidiaries to headquarters is a perceived or anticipated advantage, a value-added outcome that is contingent upon the perceptions of both the sending and receiving units (Yang et al., 2008). Goh's (2002) model of knowledge transfer emphasises an organisational structure that 'encourages horizontal communication and has few hierarchical barriers to block communication flow', and lays the foundation for effective reverse knowledge transfer in order to ensure accurate and timely collection and codification of knowledge to take advantage of opportunities. Building upon this perspective of opportunity and flow, Oh et al. (2016) suggest that MNEs aggressively expand their operations, leveraging subsidiary knowledge resources in order to develop their central capabilities through the assimilation of explicit skills (e.g. products, processes) and tacit information (e.g. competencies, capabilities, skills). From an access-based perspective, the opportunity advantages of foreign subsidiaries offer distinct value to organisations as they seek to diversify their operations or develop new pathways capable of expanding the scope of their multinational operations (Oh et al., 2016).

From a predictive standpoint, Driffeld et al. (2016) acknowledge that if competence-creating subsidiaries are a new, affective feature of MNEs, then there should be evidence regarding not only the transfer of knowledge between firms, but the effects and outcomes of the transfer process. Such outcomes are likely to be variable and firm-specific, however, empirical research in this field has highlighted key areas in which these processes have had substantive improvements. Belderbos et al. (2013), for example, demonstrate measurable productivity improvements that are traceable to the positive reverse transfer effects from subsidiary to headquarters and various distributed business units. Kafouros et al. (2012) similarly established productivity as a proxy for corporate performance and assessed the ability of 114 MNEs to leverage global knowledge resources to improve performance through a reverse transfer of knowledge.

In spite of providing the theoretical justification for comparing the effects of reverse knowledge transfer on organisational performance, Driffeld et al. (2016) argue that prior research in this field has failed to develop objective, specific, and measurable dimensions of knowledge-enhanced performance outcomes. According to Driffeld et al., (2016) their research suggests that their findings reveal 'strong consistent evidence that affiliate productivity has a positive effect on parent productivity'. The implications of this is it may be theoretically possible to develop a quantifiable model of RKT applicable in a tightly regulated industry, given the constraints of output identified by Driffeld et al., (2016). The problem with such evidence, as

demonstrated by Buckley et al. (2003) in their comparative case study of competing organisations with subsidiary operations in China is that without a specific purpose (e.g. R&D, innovation, accumulation), knowledge is a highly unquantifiable factor with varying degrees of relevance, and value in the broader scope of corporate operations. It suggests that there is further research to be undertaken in order to refine the model of Driffeld et al., (2016) if it is to have generalizable application.

If performance is not considered abstractly or is not generalised in the form of proxy data, then Frost and Zhou (2005) suggest that specific dimensions such as patent filings or financial growth can be used to compare the relative technical capabilities of subsidiary and parent organisations over time. Knowledge resources can be characterised in highly technical industries such as pharmaceuticals according to referential statements, whereby headquarters' citations of subsidiary achievements are indicative of a reverse transfer of relevant knowledge across corporate and geographic barriers (Frost and Zhou, 2005). The underlying innovative capabilities of foreign subsidiaries are predicated upon their ability to leverage local knowledge and utilise local embeddedness to develop new or innovative solutions or products (Borini et al., 2012; Mudambi et al., 2014; Williams et al., 2016).

In the context of this research this could potentially involve the development of novel services specific to a market segment which does not manifest itself in other cultural or national settings. An example relating the UAE is the development of Sharia compliant banking. Whilst Frost and Zhou (2005) observe a relatively limited contribution from subsidiaries to corporate headquarters in terms of patent citations in the early phases of industry development, over time, co-practice R&D and reverse knowledge transfer can be observed as both a contributory and replacement (e.g. less headquarters-based patents) outcome of the knowledge exchange process. By evolving beyond a centralised innovation strategy, companies in high-knowledge industries are able to rely more heavily upon subsidiary knowledge development, and ultimately, upon the reverse transfer process responsible for extending the broader knowledge of the headquarters and its agents (Frost and Zhou, 2005; Mair et al., 2015; Nair et al., 2018).

Whilst much of the founding research in this field focuses on the transfer of knowledge between product-centred, manufacturing-driven organisations, knowledge transfer in service organisations is an increasingly topic (Bezerra et al., 2013). Lahti and Beyerlein (2000), for example, argue that the relative success of the service industry is largely dependent upon the effective transfer of knowledge between central and subsidiary organisations. Miles (2005)

acknowledges that in order to attain competitive advantages and continue to diversify core service products, organisations must incorporate ‘knowledge-intensive inputs’ into the extended business process network supported by their corporate headquarters. Facilitating this accumulation of service-specific competencies, Doloreux et al. (2008) observe a weighted experiential learning process which allows individuals within subsidiary operations to develop unique, transferable knowledge through interpersonal exchanges. Najafi-Tavani et al. (2012) propose that in order for service knowledge to be transferred several conditions must be satisfied including willingness to share, the degree of external embeddedness, and network-based socialisation between teams.

This section of the chapter has critically considered a number of perspectives in relation to the development and application of RKT systems in an organisational context, taking into account their application and contribution to organisational growth. The literature reveals that there remain a number of competing viewpoints in respect of the use and value of RKT. On the one hand there is broad agreement that in theory, RKT ought to offer a reliable means of securing organisational advantage through the capture and utilisation of tacit knowledge. However, empirical evidence produces more mixed results, continuing to point to a gap in terms of understanding how RKT can be used effectively on a consistent basis as a strategic organisational tool. Specific characteristics of knowledge appear to be heavily influential, including the willingness to share knowledge, and the mechanisms of knowledge transfer. Further, the willingness to *receive* knowledge also may pose some influence, reinforcing the value and importance of context. This latter aspect appears to have its basis in the empirical evidence showing that parent companies headquartered in developed economies are somewhat dismissive of the perceived value of knowledge from subsidiaries in developing economies (Gupta and Govindarajan, 2000), but potentially the converse, as examined here, offers a different perspective and thus a different approach to generating value and sustainable competitive advantage from knowledge.

In a synthesised paper, Easterby-Smith et al., (2008) evaluate factors specific to the nature of knowledge transfer based on current research and also anticipated future directions. Of interest to Easterby-Smith et al., (2008) specifically, is how and why knowledge is first acquired and then transferred, but more importantly why its *context* is important. They make the point that culture influences the way in which language is interpreted and understood which is critical to broader interpretation. What is obvious in one context on the basis of one set of experience is not nor should it be assumed as obvious in another. Indeed, numerous multinational IT projects

have failed this very reason, in that cultural assumptions of normal working patterns and behaviours have caused assumptions to be made in the design of software which has subsequently caused catastrophic problems (Chua and Lam, 2005). The point to develop from the work of Easterby-Smith et al., (2008) is that culture and context matter enormously the efficacy or otherwise of RKT.

The paper of Easterby-Smith et al., (2008) is also consistent with the meta-analytic research of Van Wijk et al., (2008) who evaluated inter-and intra-organisational knowledge transfer both forward and reverse. Van Wijk et al., (2008) found a difference in the impact of cultural interpretation both inter-and intra-organisational transfer, and surprisingly this difference is more pronounced as a mediating variable on an intra-organisational transfer basis. It implies that when sharing knowledge, employees of all cultures are more inclined to be tolerant of variances from other companies as compared to subsidiary or parent unit within their own firm. This implies that organisational culture is also some degree of mediating variable, although this was not what Van Wijk et al., (2008) specifically set out to evaluate. This also potentially implications of the willingness of subsidiary and parent units to learn from one another, something which in light of the recent research by Ahammad et al., (2016) could potentially be of greater relevance.

The work of Ambos and Ambos (2009) evaluated the role of technology in knowledge transfer, assessing transfer mechanisms within 329 organisations. In particular the directed attention towards the similarities and differences between knowledge transfer effectiveness on the basis of personal networks, as compared to technology driven networks. Ambos and Ambos (2009) found, unsurprisingly, that there is a clear distinction between the effectiveness of knowledge transfer on a personal basis as opposed to a technology basis where culture and distance are significant mediating variables. They reveal that technology has a neutralising effect, in as far as data is captured consistently and relatively easily shared although there is less depth to the data and less willingness and detail. The findings in relation to the personal networks were markedly more varied, with some very positive outcomes and less positive with cultural distance being the most significant influencing variables.

Ambos and Ambos (2009, p.12) did not suggest that there was deliberate misunderstanding, but rather a lack of contextual appreciation which negatively impacted upon the efficacy of knowledge transfer unless there was already a very good relationship between individuals. They ultimately concluded that “*contextual, linguistic and geographic distance*” are all

significant influencing variables, even when there is a shared language but a significant geographic distance, for example, English is spoken as a first language in both Australia and the UK and they share a number of cultural similarities, but there is a vast geographic distance which has surprisingly significant effect. This can be sensibly assumed to be multiplied on a number of factorial variables when there is increasing cultural and linguistic distance.

Mindful that people are critically important component of knowledge generation and transfer, Chang et al., (2012) focus specifically on the role of expatriates as knowledge transfer activists. Consistent with research from HR literature regarding the role of expatriates (Anderson, 2006), Chang et al., (2012) found that expatriates play a crucial role in absorptive capacity and knowledge transfer although it is important to recognise in the study of Chang et al., (2012) that the expatriates were Taiwanese capture information from a developed economy, and were therefore specifically interested in knowledge capture and sharing. This was a point alluded to previously regarding the balance of power nature of the relationship between parent and subsidiary. It is also consistent with the work of Van Wijk et al., (2008) regarding willingness to learn and Ambos and Ambos (2009) demonstrating the in the right circumstances, good personal networks are critical to the success of knowledge transfer.

Vaara et al., (2012) examined another dimension of the relationship proposed by Van Wijk et al., (2008) regarding inter-and intra-organisational knowledge transfer. Vaara et al., (2012) looked specifically at the acquisition of a range of subsidiary firms by a European parent, and found, consistent with Van Wijk et al., (2008) that inter-organisational knowledge transfer following acquisition created social conflict, which would be anticipated, but that cultural variation had a negative mediating impact. In other words, employees were more willing to exchange knowledge and information with those who shared cultural similarities, even from other organisations. Vaara et al., (2012) did not specifically evaluate why this might be, but they found consistent support the hypothesis that both the components of inter-and intra-organisational knowledge transfer through national and organisational cultural dimensions were powerful. This has implications for the efficacy of knowledge transfer following acquisition of subsidiaries which have very different cultural norms to that of the parent. However, Fong-Boh and Nguyen (2013) provide contradictory evidence that trust between parent and subsidiary is a more influential variable and necessarily personal values or organisational culture. They suggest that the willingness of individual employees within subsidiary to accept knowledge transfer from the parent is largely on the basis of the extent which they trust and value the parent organisation. This implies that in the right circumstances,

it is possible to bridge many of the gaps which would be assumed to exist on the basis of cultural and linguistic differences potentially irrespective of geographic reach.

More recent research such as that by Ahammad et al., (2016) and Nair et al., (2018) point towards a shift in attitudes towards RKT within the realm of global acquisitions. Specifically, evidence seems to be revealing a greater degree of international knowledge sharing and collaboration, although it is too much to suggest that there is homogeneity of approach. However, there does appear to be diminishing evidence of barriers relating to cultural, linguistic and distance factors. In both studies, evidence points to increasing willingness to engage in international knowledge transfer, both forward (Ahammad et al., 2016) and reverse (Nair et al., 2018), with organisations in all instances deriving benefit provided that all parties engage fully in the process. It is to be noted that the study by Ahammad et al., (2016) and Nair et al., (2018) are positioned in contextually similar domains, that is to say, North American to British relationships and Indian parent multinationals within a recent acquisition window. This may have some bearing on the findings which it is consistently agreed throughout literature in this field are heavily contextually embedded. It suggests that there is renewed scope for evaluating the nature of RKT as parent firms from emerging and developing economies begin to engage more heavily in outward foreign direct investment.

Although it is clear from the growing body of literature in regard to RKT in multinationals, contemporaneous studies continue to demonstrate that there are gaps in understanding typically in relation to ensuring consistently effective RKT. As discussed extensively in this chapter so far, research consistently demonstrates that factors such as the relationship between the parent and subsidiary is a significant mediating variable, the characteristics of knowledge are important, individual employees play a significant role, contingent upon their willingness to share knowledge, the context of the knowledge which they are sharing, and the level of agency. However, the fact that knowledge transfer and particularly RKT is empirically shown to have mixed results contingent upon the wide variety of factors confirms that there remains a gap in understanding as to the relative importance of these differing mediating variables in context. This interpretation is evidenced by the findings of Ahammad et al., (2016) for example, to conclude that the practicality of knowledge transfer is an important consideration in its efficacy. Ultimately it appears to be the case that the human sociocultural element of knowledge transfer is an aspect which is not fully understood or acknowledged (Peltokorpi, and Yamao, 2017), which is why it is important to continue to research this important area, as multinational business becomes increasingly common (Eden, 2009).

Szulanski (1995); and Zahra et al (2000) have analyzed the different dimension of Knowledge transfers such as budgets, timings, receiver satisfaction, amount, pace, transferring costs and understanding etc. But, despite all these studies, there is a patent lack of researches done around the impact of the KT mechanism on marketing and operational capability development. The specific type's mechanism, which plays a crucial role in transferring of knowledge, remains relatively unidentified and the effect of mechanism and its effectiveness are relatively unknown. The parent company and subsidiaries are in different world locations and physical interaction is often difficult to engage in. These organizations carrying out annual meeting in order to share hard knowledge. Thus, geographical distances tend to lead to ineffectiveness in the overall Knowledge transfer process and so it is impossible to transfer interactive knowledge whenever needed.

Ahammad, Tarba, Liu, and Glaister (2016) state that in the overall process of Knowledge transfer, timing is the most important aspect influencing the effectiveness of the process. Timing is one of the important factors in documenting pertinent knowledge. An organization need to collect knowledge in real time, so that it can be documented at the right time. If the information needed by the parent company is not provided at the right time, then the information itself may become difficult to process. Information needs to be shared at right time and without any delays to maintain the effectiveness of the Knowledge transfer process. Lack of time hinders the flow of conscious knowledge in an organization. Objectified knowledge requires appropriate timings for communication between employees. Codified knowledge includes coordination through an intranet database, B2B services, financial reports and an incentive system. Inappropriate timings result in lack of information sharing, which reduces the speed of capability development. In the case of automatic knowledge, timing is also considered a critical factor because such knowledge allows employee to share values, skills, and customer-specific knowledge with each other. Given these considerations inappropriate timing in the Knowledge transfer process may reduce the overall efficiency of the workings (Patriotta, Castellano and Wright, 2013). Lastly collective knowledge allows an organization to share their culture, models and identity. The sharing of collective knowledge requires appropriate timing to develop skills in employees, so that they can work in a changing environment.

For parent and subsidiaries, it is often difficult to share face-to-face information immediately when needed. This is because barriers such as location distance limit timely information being

shared among them (Minbaeva et al., 2014). The difference between local country timings and host country timings also plays a major role hindering successful Knowledge transfer (Larimo, Le Nguyen and Ali, 2016). The geographical distance between a parent company and subsidiary also may negatively influence the overall Knowledge transfer process (Patriotta, Castellano and Wright, 2013). Therefore, to avoid this barrier special meetings should be facilitated between employees on basis of urgency and a critical person of both the parent and the subsidiary must be available and ready when needed to share information. The management team, unit managers, rooming-in, codified database, formal training and e-communication should be transferred through proper modes and according to the appropriate time in order to reduce inefficiencies due to inappropriate timings (Minbaeva, Pedersen, Björkman, Fey and Park, 2014). Previously numerous studies have been conducted by Minbaeva et al., (2014); Patriotta, Castellano and Wright (2013); Ahammad, Tarba, Liu, and Glaister (2016) on the Knowledge transfer mechanism and its impact on capabilities development and learning, but there is lack of focus regarding identifying the linkage between timings of the Knowledge transfer mechanism and its influence on speed of capability development. This literature review has endeavoured to identify this lack of focus – or gap – in previous studies with special reference to how the timing mechanism in the KT process negatively influences the speed of capability development.

The timing of a mechanism plays an important role in providing accurate and efficient knowledge to employees. In a management-related mechanism the acquisition of a management team acts as initiator, which explains the contribution done by management team in order to share tacit knowledge to employees (Eisenhardt and Martin, 2000). The tacit knowledge shared by the management team allows enhancing the learning capability of employee's thus assuring skills development. The management team share up-dated information related to financial, customer demand and products details etc. The transfer of accurate information on time affords employees the information needed to perform their duties. Also, unit managers guide employees and share information at the appropriate time (Saá-Pérez and Garcia-Falcon, 2002). Unit managers share details regarding products or services so that employee can better perform their duties. Lastly, given the sharing of accurate information on time, employees are more easily able to guide customers to appropriate products or services. If information regarding a product is not shared with employee on time, then it may negatively influence the customer relationships. Therefore, timing is a crucial information tool that can ensure the effectiveness of management related Knowledge transfer mechanism.

When the knowledge is transferred at the right time then it results in overall Knowledge transfer process effectiveness. The Knowledge transfer mechanism and the timing allow the gaining of overall efficiency in a business because of updates accurate and timely information shared among companies. According to Canestrino (2004), when an international alliance is created by MNCs then the firm's boundaries become permeable, which enhances the learning process of any organization and it eventually results in capabilities development. Cross-border interaction allows companies to interact and it provides many opportunities for Knowledge transfer. However, cultural differences also influence on the partner. For instance, in the late 1980 the English caterpillar entered into cross-border alliances with Korean Daewoo to build forklifts. Caterpillar is one of the leading companies producing diesel, gas, engines and mining equipment etc. The reason for the joint venture with Korean Daewoo was to gain access in the international market for business expansion. To this end the company shared its resources across borders and provided critical technology to Daewoo but later, because of geographical distance, cultural differences and lack of timely information sharing the relationship was fragmented (Goh, 2002).

The above example reveals that earlier there are numerous studies, which identifies the timing of mechanism as an important aspect in the Knowledge transfer process. But the link between timing mechanism and its relationship with the speed of capabilities development in Knowledge transfer has been under research (Canestrino, 2004). The overall industry is depending upon the successful sharing of information among parent company and subsidiaries. The inaccuracy of information or timing issue may be due to the personal difference. Written information successfully transferred enhances capabilities across borders (Canestrino, 2004).

In the learning-related mechanism the Knowledge transfer is done through rooming-in, formal training and self-directed learning. Lastly, technology-related mechanism includes the Knowledge transfer through e-communication, information system implementation and codified database. Intra-organization knowledge transfer plays significant role because it allows to access resources. The effectiveness of the knowledge transfer mechanism is based on three types: documentation, technology driven and face to face social ties. Documentation encompasses writing procedures and practices that help an individual to adopt existing knowledge. It can be the codified documents underlying important knowledge (Lema and Lema, 2013). The technology mechanism allows company to transfer knowledge through

emails, database and other tools. It is computer-based technology that connects companies together and results in the intra-organizational connective sharing of knowledge rapidly among multi-locations and multi-levels. Lastly, face-to-face community allows organization to transfer knowledge from one location to another. It is one of the most effective knowledge transfer mechanisms, which helps in transmitting tacit, implicit and explicit knowledge (Sheng, Chang, Teo and Lin, 2013).

According to Lema and Lema (2013), an organization needs to process absorptive capacity in order to assimilate and utilize appropriate knowledge. The assimilation of knowledge is one of the driving forces which results in capability development. The acquisition of knowledge benefits a firm which enhances its ability to exploit new opportunities. The inter- and intra-organizational relationships built up by a firm allows them to gain access towards external knowledge. The concept of absorptive capacity shows the ability to develop and accumulate knowledge, which further contributes in innovation and capability development through learning. The development of knowledge enhances the learning speed and systematic knowledge accumulation through technology-based capabilities.

2.7 Culture and Knowledge Transfer

At a very straightforward level, culture can be understood as a shared set of “*norms, behaviours, beliefs, customs, and values*” (Deal and Kennedy, 1982, p.110). At deeper levels, culture is forged from shared history and understanding, meaning that language, religion, ethnicity and race also infuse interpretations and understanding. Furthermore, culture is dynamic and largely tacit in that it is instinctively understood by those familiar with culture, but hard to identify and that it is disrupted by those unfamiliar with culture (Van den Berg and Wilderom, 2004). To illustrate by way of simple example, in the majority of Western cultures, it is considered polite to shake hands and look someone in the eye at first meeting. In several Eastern cultures this would be considered rude and abrupt, however in an effort to be polite, neither party would mention that the other had breached tacit protocol.

A common thread in the literature regarding knowledge transfer, both forward and reverse, is a willingness to share knowledge, and also trust emanating from the party (whether an individual or organisation) sharing such knowledge. The reason that willingness trust are so important relates to the matter of power, as to share knowledge, is in some form, to share power, or at the very least provide sufficient information for the recipient of the knowledge to strengthen the position in some way (Joia and Lemos, 2010; Jansen, 2017). Knowledge is

neither absolute nor relative, but it is contextual - and none of these factors to attract from the importance of willingness and trust in successful knowledge transfer (Joe et al., 2013).

Applying these principles in relation to culture at both national and organisational level, illuminates a number of implications regarding the interrelationship of culture and trust within the context of knowledge transfer. Of specific relevance in regard to this research is the already noted knowledge that the greater proportion of multinational firms headquartered in the GCC are either family-owned, or extensively state owned (Dupuis et al., 2017; Kneuer et al., 2019). The dynamics of such the situation are that any subsidiaries outside of the GCC are very likely to be overseen either by a family member or a state emissary. It would be unusual for any subsidiaries not to have direct intervention from their parent firm as, to paraphrase Deal and Kennedy (1982, p.111) "*it's the way things are done around here*". Potentially, this has the capacity to distort some of the Western assumptions of the way in which power in knowledge transfer between parent and subsidiaries functions against this complex interrelationship of personal and professional factors.

In this particular context, national culture and organisational culture are interlaced, in that businesses in the GCC are typically strongly hierarchical, with senior positions far more likely to be secured through social capital - 'wasta' - indicating that there is an undercurrent of power in the form of reciprocal favours (Barnett et al., 2013). However, there is also evidence to suggest that the emerging generation of senior managers, i.e., managers of GCC heritage now in their late 20s early 30s, are very likely to have benefited from the strategy of state-sponsored international education. In an effort to accelerate professionalism in state and private owned organisations, many professionals in the GCC are likely to be both very well educated, and potentially more cosmopolitan than their parents' generation (Kamenou-Aigbekaen and Thory, 2016). This may or may not impact on the way in which power is perceived used in an organisational context.

Although 'wasta' is officially not practised, it would seem unlikely that meritocracy prevails in terms of allocating senior jobs and functions (Tlaiss and Kauser, 2011). It is inherently part of Middle Eastern culture, and in its own way no different from other cultural systems of favours which are found even in purported democracies - the UK equivalent currently very stark in terms of the purported 'Old Boys' Network'. The implications of this for acquisition utilisation power and subsequent knowledge transfer are likely to be complex as on the one hand, an individual who has benefited from wasta to secure position may feel obliged to repay

the favour. Conversely, they may feel aggrieved, and prefer having power in their own independent location and thus choose to retain their modicum of power by refusing to share information, or judiciously editing information in order to retain some degree of power through position (Bailey, 2012). All of these aspects are interlaced with the way in which culture functions at national and organisational level and so it is helpful to consider the meaning and application of cultural theories in relation to international business activity knowledge sharing.

2.7.1 Implications of Culture for Knowledge Transfer

In the view of Battistella et al., (2016), one of the most important factors to consider in relation to knowledge transfer in multinational firms is that of national culture. Partly because of the cultural norms of the countries in which the respective parent and subsidiaries operate, but more importantly, because of the role of context (Easterby-Smith et al., 2008; Van Wijk et al., 2008; Fong Boh et al., 2013). As discussed, in regards to the Hofstede model, the true value obtained from cultural understanding is the nuanced interpretations of double layered context - within the UK, the apparent surface stability, which can often mask a relatively ruthless desire to win - evidence which is found in high degree of masculinity (Hofstede, 2015). Similarly in culture emanating from the GCC in that there is strong collectivism, but also strong indulgence (Mellahi et al., 2007) which creates an inherent tension in as far as it is quite likely that there will be adherence to some of his aspects of culture, but also but this needs to be interpreted in context in order for transfer to be relevant - and this is the key to successful glocalisation.

The most effective transfer of knowledge captures tacit or nuanced elements of culture which are often difficult to identify without a very deep understanding (Holten et al., 2016). By way of example, in an advertising or marketing context, very few marketers would attempt to transfer humour from one culture to another in the knowledge that humour is inevitably culturally specific, and also quite often specific to shared experience at a specific point in time (Gregory et al., 2019). There is a very high probability that any joke would fall flat without the contextual knowledge, and could even be damaging so even if parties were willing to place the advert another context, it would probably not be effective (Gregory et al., 2019). Precisely the same principles are likely to manifest themselves in terms of knowledge transfer and reverse knowledge transfer between parent and subsidiary without the benefit of context.

It is hypothesised in this research, that where GCC based multinationals may well have an advantage is that in using trusted family members to head up subsidiaries overseas, provided

that they have had sufficient education to understand the culture of where the subsidiary is based, there is a strong possibility that they will prove the ‘secret weapon’ or conduit for knowledge transfer between the GCC parent and subsidiary. If the emissary heading up the subsidiary has the requisite combination of shared cultural experiences, they are likely to be able to ‘translate’, as it were, between cultures. Not merely at the level of having bilingual capability, but also being able to interpret cultural norms and behaviours contextual knowledge differentiating activity which can be used by the parent company to secure sustainable competitive advantage. It is by no means a guarantee, but it is certainly likely to have mediating effects on the efficacy of reverse knowledge transfer from subsidiaries to parent. It will also carry the greater weight of trust and willingness associated with familial ties and organisational hierarchy which is embedded in cultural hierarchy, and this in turn should, in principle give the GCC parent to competitive advantage in terms of positioning subsidiary for the desired purpose.

Whilst the theoretical framework of national cultural norms espoused by Hofstede (2015) is widely discussed and applied, it is important to note that it is not without criticism. McSweeney (2002, p.89) remains sceptical of Hofstede’s framework, describing it somewhat scathingly as “*a triumph of faith [but] a failure of analysis*”. Issues raised by McSweeney in relation to Hofstede’s work that in the first instance it has several methodological flaws based on unreasonable assumptions, meaning that the *Dimensions of Culture* model developed and presented by Hofstede cannot be considered as either robust or generalisable in any event. McSweeney also queries the seemingly widespread acceptance of Hofstede’s assertion that it is possible to generalise with regards to entire national cultures. The implication of McSweeney, whilst not explicitly drawn out, is that because every individual person is likely to be different, and McSweeney argues it is both unfair and unrealistic to suggest that every person within a particular culture will conform to specific sociocultural ‘norms’. McSweeney also queries the empirical conclusions of Hofstede, questioning the data source and its application. These criticisms of McSweeney duly noted, there is plentiful research supporting the propositions of Hofstede (1980), and indeed could well be the case that there is a symbiotic relationship between the theory proposed by Hofstede, and the behaviour of people under specific culture in any event. On the basis of the greater weight of supportive evidence in favour of Hofstede’s model, it is treated as a reasonable framework to adopt in the analysis of the distinct aspects of GCC culture as compared to that of other parts of the world.

2.7.2 Culture in GCC Firms

Hesmondhalgh and Pratt (2005) raise the important issue of cultural exception policies, which, as they summarise, describes the position of a nation state as it seeks to protect and preserve its cultural norms from adaptation and dilution through globalisation. Mindful that individual national cultures within the collective of the GCC are broadly similar¹ it is not a surprise to find consistently high degrees of uncertainty avoidance and a preference for long-term orientation. This translates into an overall policy of preserving the status quo, and being very reluctant as an economic trade block to adapt any aspect of policy in order to conform with the expectations of global policy such as WTO or trade agreements with other economic blocs or countries. As a paper by Xuewen and Yihong (2013) reveals, negotiations between the EU and the GCC have been ongoing for more than 20 years with very little change, likewise negotiations between the GCC and the US. There has been marginally more progress between the GCC and delegations from China, although they have also been ongoing for the better part of a decade, with the GCC representatives steadfast in their refusal to grant concessions or policy changes.

Despite these assertions however, contradictory paper by At-Twajri and Al-Muhaiza (1996) argues that countries do change, but not necessarily under a spotlight, and not necessarily in the way which might be anticipated. Instead it is a gradual evolution through the diffusion of ideas, and exchange of concepts. Introversion by a country is now relatively unusual, and globalisation with the economic and social benefits which typically accrue represent the economic and policy norm (Frau-Meigs, 2002; Gundara and Jacobs, 2019). As organisations reach saturation in their domestic market(s) or perhaps because there is unanticipated demand in another country, it is normal practice to begin to adapt organisational operations at local level, and to a lesser extent national level. A policy known as glocalisation, it is the practice of multinational organisations thinking globally but acting locally (Gelfand and McCusker, 2017). A study by Masocha (2017) found that the adoption of such policies infuses national and organisational culture and has implications for the willingness or otherwise of subsidiaries and parent companies to share knowledge. For glocalisation to be successful, it requires some aspects of Hofstede to be observed in terms of understanding of similarities and differences, and also, critically, a willingness to share knowledge from the subsidiary to the parent, and for

¹ See footnote 1

the parent to acknowledge this information in order to adapt positioning, organisational practices, and particularly marketing activity.

If the assertions of Hesmondhalgh and Pratt (2005) regarding cultural exceptions are taken at face value, then there is an inherent contradiction in as far as the pace of development of GCC countries as they expand internationally, means that by definition they must be engaging in some form of glocalisation in order to secure an international foothold. Potentially it suggests, that much like UK culture, there are multiple levels and that internally there may be a strong unwillingness to challenge the status quo in some aspects, but not in others. Potential evidence for this is found in the way in which certain aspects of Western culture have been enthusiastically embraced in parts of the Middle East, but other aspects have been actively blocked out (Barnett et al., 2013). It implies much greater nuance in the cultural exception policy in as far as organisations, or that those in positions of power are picking and choosing aspects which they are prepared to accept, and aspects which they will not.

For example, it would not be anticipated that adherence to the principles of organisational hierarchy would necessarily be overlooked, because this is such a deeply embedded part of culture in the GCC which infuses all aspects of national and organisational activity. Likewise, an enduring preference for building long-term and trusting relationships is likely to be important (Titmuss, 2018), which would also explain why it is far more likely that family members are sent as representatives to manage an overseas subsidiary as they can be trusted to work towards maintaining the family dynasty. However, there appears to be an emerging tension between individualism and indulgence in certain aspects of society as evidenced by the way in which those with wealth in the Middle East are happy to demonstrate their wealth. This is purportedly particularly pronounced amongst younger generations from within the GCC (Barnett et al., 2013), which could potentially point to areas of further changes away from the cultural exceptions model, and towards greater opportunity for negotiation and power-sharing on a reciprocal knowledge transfer basis.

2.8 Summary

This chapter has presented a critical evaluation of existing literature relating to knowledge, and its utilisation within the context of organisations. Specifically, the focus of this literature review has concentrated upon developing an understanding of the framework of knowledge transfer from subsidiaries back to parent firms considering the characteristics and features of knowledge, the infrastructure necessary for successful knowledge transfer, and a detailed focus

on forward and RKT within multinational organisations. Particular issues of interest have been the role of culture in effective knowledge transfer, and the timing and speed of knowledge transfer. These factors are considered to have an influential role in the efficacy of knowledge transfer, and crucially its subsequent application and utilisation in terms of engendering and then sustaining competitive advantage. On the basis of this literature review, it can be established that there remains a gap in understanding regarding the nature of the relationship regarding RKT from subsidiary back to parent, when the subsidiary is in a developed economy, and the parent is in a developing economy. Accordingly, the next chapter of the thesis discusses the theoretical framework of the study, based upon the social psychological lens and the knowledge-based view.

CHAPTER 3: THEORETICAL FRAMEWORK

The Social Psychological Lens and The Knowledge Based View

Having discussed in some depth the mechanisms and motivations of knowledge transfer within MNEs, from parent to subsidiary and vice versa, the following discussions evaluate theoretical explanations for the efficacy of these mechanisms illustrating how they both support the research at hand, but also have some limitations. Two core theoretical concepts are discussed, firstly the social psychological lens and secondly the knowledge-based view. Within this theoretical framework, dimensions of communication, trust and social exchange are considered all of which are shown in the empirical research to be significant in terms of the speed, efficacy and perceived value of knowledge when it is captured and transferred.

3.1 Social Psychological Lens

Theory of the social psychological lens is concerned with placement and sense making of the individual relative to knowledge and context. According to Zittoun and Perret-Clermont (2009), the latter is critically important for transferability in a dynamic environment. This has relevance in respect of knowledge transfer, and the willingness of subsidiaries to share knowledge, and also the cultural context which informs underpins knowledge transfer. As discussed extensively in respect of the mechanisms of knowledge transfer, it is not enough to simply have a means of transferring knowledge, it requires more depth and detail at a tacit level in terms of a feeling of safety and security in sharing knowledge, a perception of value in sharing knowledge, and also an appreciation of shared outcomes having transferred knowledge. Studies have examined the importance of parent and subsidiary having shared sense of direction and also a shared set of organisational cultural norms in order for knowledge transfer to be effective (Inkpen and Tsang, 2005; Argote and Fahrenkopf, 2016). Literature concerned with organisational culture recognises that for international businesses, a shared sense of ‘the way things are done around here’ (Deal and Kennedy, 1992) is fundamentally important if knowledge transfer is to be effective and exploited to the benefit of parent and subsidiary.

The social psychological lens recognises the vital importance of shared context in order for knowledge transfer to have value and meaning. An instruction to share knowledge for example will not necessarily deliver value, because it depends on the extent which individual in possession of knowledge, particularly in the subsidiary, is aware of the value of the knowledge

they possess, and is even capable of codifying the knowledge to the extent that it is possible to transfer it (Harzing et al., 2016). The importance of context should not be overlooked in as far as knowledge which may appear valuable or indeed unimportant to a subsidiary may have the converse impact for the parent. Without cultural embeddedness, it is impossible to be sure whether knowledge is valuable, and also whether when it is transferred it will deliver at least some measure of value back to the parent. For subsidiaries to be willing to share their knowledge in this way, they must therefore feel valued and appreciated, and there must be demonstrable evidence of the knowledge that they share being effectively utilised in order to generate further momentum for knowledge sharing.

Zittoun and Perret-Clermont (2009, p.10) argue for the importance of “*identifying the intra-personal processes*”, which facilitate knowledge transfer. This can be linked back to the discussions in section 2.4 regarding the role of expatriate assignment is being physical manifestation of knowledge transfer, and a valuable opportunity to capture the context as well as the perceived value of knowledge transfer and build inter-company relationships which demonstrate a genuine belief in the importance contribution of knowledge transfer. Ciabuschi et al., (2010) argue that this can be overlooked with overreliance on systems-based approaches, failing to appreciate the importance of people in the process of knowledge transfer and especially in terms of capturing context, and using this context as a means to frame knowledge.

3.1.1 The Role of Communication in Knowledge Sharing

Hong and Nguyen (2009) confirm that organisational hierarchies affect the willingness of individuals to engage in communication, and share their norms, values and language. As identified by Li and Hsieh (2009), and also Lee and Wu (2010), informal organisational groupings are also very powerful in terms of intergroup communication and vary according to social and cultural norms. The implications of this for effective intercompany knowledge transfer are that the extent which employees are willing to share and communicate knowledge within and between groups varies quite considerably, even when an organisation has instigated knowledge transfer mechanisms. Choi and Johanson (2012) posit that the reason for this is the recognition knowledge is power, and employees will hoard their knowledge they feel unsafe or undervalued. This in turn implies that there is a potential gap in understanding whether firstly all knowledge has been captured, and then, whether there is a lack of perceived value or a lack perceived safety which hinders willingness to communicate knowledge.

Wider research regarding perceived injustices within organisational culture and processes demonstrate a strong relationship being perceived unfairness on the part of senior manager or a parent company, and subsequent unwillingness of an employee to engage with their organisation and share knowledge (Millar and Choi, 2009; Peltokorpi and Vaara, 2014). From the perspective of the social psychological lens, employees who feel unsafe or untrusted in a subsidiary will not willingly share valuable information with the parent. If a parent company approaches the idea of knowledge transfer the tacit belief that the parent is inherently superior, and the knowledge of the subsidiary is inherently inferior, then it should not be remotely surprising that knowledge is not uniformly captured or transferred (Fong Boh et al., 2013). Fong Boh et al., (2013) further note that the parent company can unwittingly display an attitude of dismissive must, by for example seldom sending employees from the parent company to the subsidiary in order to discuss matters and share knowledge and context.

Conversely, research confirms that employees will share their knowledge to a certain extent out of the desire to belong to be accepted as part of a social group (Islam et al., 2015). The desire to be included is a strong human desire, and when there is a shared sense of cultural value and social equity, employees will contribute their knowledge and experience in order to gain acceptance in a group. In an organisational setting, sharing experience and knowledge will help an employee becomes embedded within the organisation (Islam et al., 2015). Inter and intra group knowledge transfer is therefore more likely when there is a sense of social justice and engagement and a sense of trust and value (Pacharapha and Vathanophas Ractham, 2012). If employees feel safe, trusted, and valued, they will share detailed information on a voluntary basis, with rich context which is exceptionally valuable to the efficacy of knowledge transfer. Andersson et al., (2015) conclude that a failure to encourage the conditions for intergroup communication will lead to a lack of knowledge sharing.

Potentially it is also useful to further investigate the role of social bias within social groups, in as far as if someone is considered to be associated with a different (tacitly interpreted as inferior) social group, for example a subsidiary, there is a strong chance that the knowledge and information that they share will be less valued or even ignored or dismissed (Montazemi et al., 2012). This social bias is proven to occur in multiple settings, and on the basis of the extensive research confirming the attitude of parent companies in knowledge transfer, it would be suggested that social bias is inherently present and indeed prevalent in this context. Recognition and awareness of social bias and its influence on the perceived value of knowledge which has been transferred from subsidiary is likely to be influential.

3.1.2 The Role of Trust in Knowledge Sharing

It is important to note that trust is fundamental component of a willingness to share knowledge, and research into practice led learning development confirms that when there is trust between an employee and their line manager, they are far more likely to share knowledge (Mäkelä et al., 2010). Numerous other seminal studies confirm the critical role of trust in effective knowledge transfer, illustrating aspects such as why trustworthiness matters in the speed efficacy of knowledge transfer (Szulanski et al., 2004), and also the critical role of social capital in the form of social networks and social equity, and how the preexistence of such social capital strongly influences a relationship towards trust and thus willingness to share knowledge freely (Inken and Tsang, 2005). Other interpretations of the role of trust reveal that shared organisational vision is also an important consideration, as shared organisational values and vision strongly indicate the likelihood of organisational trust (Li, 2005).

As Evans (2013) goes on to reveal, culture and context is key, and a culture of trust openness and inclusion is demonstrably more likely to deliver practitioner led benefits. Organisations are proven to benefit more if they create a culture of openness collaboration and belief as opposed to an instructional culture (Evans, 2013) - in effect, a sense of shared cultural value. The social psychological lens theory demonstrates the importance of trust and safety in order to contextualise knowledge and demonstrate willingness to embrace new knowledge from trusted sources. Watson, S. and Hewett (2006) rely upon social exchange theory and expectancy theory to demonstrate that where trust is present in knowledge intensive firms then there is demonstrably increased likelihood of efficacy of knowledge sharing, and also crucially “knowledge reuse” (2006, p.141). In other words, once the knowledge has been transferred, it is actually applied and the organisation benefits. Squire et al., (2009) also demonstrates the importance of trusting relationships, and similarly to the work of Lyo et al., (2020) and Su et al., (2020) with regard to the length of relationships, confirm that relationship duration is an important mediating variable in the likelihood of knowledge transfer, and subsequent knowledge use.

As discussed extensively above, shared knowledge and effective communication requires a high degree of trust and frequency and both inter and intra group communication. Organisational structures which encourage this flow of trust, may help to both accelerate knowledge transfer, and also create a sense of shared cultural values (Evans, 2013; Evans et al., 2015). If those who are sharing their valuable knowledge see that it is appreciated and utilised, for example the parent company adopt a process or disseminate the knowledge more

widely, then this supports the sense of value and trust, and, it is posited increased levels of employee engagement and commitment to the knowledge sharing process. As trust is built over time, it is important to continually reinforce the idea of trust, and the importance of building shared knowledge in teams (Evans et al., 2015).

There is some evidence to suggest that the pace of development of trust can be accelerated to a degree, provided that there is demonstrable outputs relating to the knowledge being used effectively, and critically, credit being given for the knowledge (Jain et al., 2015). This reinforces the sense of social engagement, trust and commitment to the organisation, and encourages further future knowledge sharing and transfer from the subsidiary to the parent. The key is that the parent creates the conditions for trust were demonstrating fairness in utilisation of the knowledge which they acquire, and also reinforcing its perceived value.

3.1.3 The Role of Social Exchange in Knowledge Sharing

As the preceding discussions confirm, research into strategic alliances illustrate that the most successful strategic alliances are those which are built upon the social exchange model - that is to say, employees are keen and willing to share knowledge in order to build social capital which is mutually beneficial (Watson and Hewett, 2006). Attitudes of trust are imperative in order to engage in knowledge sharing and mutual benefit must be assured (Evans, 2013; Evans et al., 2015). Trust is found to grow over time on the basis of mutual agreement, and there is also an increased propensity for tolerance and patience of there is initial misunderstanding as part of the alliance. There is perceived value to all parties in building trust and sharing knowledge, and this also accelerates the knowledge flow process as well as the quality of knowledge and the generation of new knowledge to mutual benefit as a form of differentiation in a competitive market. According to Burmeister et al., (2015), the critical importance of this process however is demonstrating mutual perceived value and social equity.

Research by Kumar (2013) suggests that organic growth rates of knowledge transfer appear to be fundamental to the success of knowledge development and sharing in order to build social capital and it appears to be consistent across all theoretical perspectives. The implication of this is that social exchange and social equity cannot be artificially engineered or deliberately accelerated if the relationship is to be properly built and maintained. Given that trust is also associated with the perceived sense of value and equity (Islam et al., 2015), ownership of the knowledge, and also trust and fairness, if there is perceived social inequity this affects the

willingness to engage in social exchange. There is less research which has explored whether organisations and teams recover from a perceived breach of trust in the building of social exchange which would halt knowledge transfer.

An effective knowledge transfer within the context of socio-psychological lenses confirms that attempts to accelerate or force knowledge transfer will result in barriers (Tsui-Auch and Möllering, 2010), therefore it is important to create the conditions for knowledge transfer, perceived value and equality in knowledge exchange, and an equal balance of power relationship. Distorting the balance of power by refusing to accept differing social classes or cultures by ignoring nuance of knowledge is important. This is in turn linked to perceptions of fairness trust and personal value which are consistent in the identification of the willingness to engage in knowledge transfer and perceived quantum of knowledge transfer in terms of speed flow volume and accuracy. In plain terms, trust and perceived balance of power are the most important elements in the efficacy of knowledge transfer (Evans, 2013). A parent has to create a shared sense of cultural value, and the parent company must also demonstrate that they value the knowledge received from the subsidiary.

Some questions are posed by Junni (2011) regarding accuracy in knowledge transfer. In other words, those sharing their knowledge giving full information, or partial information, or unintentionally incorrect information because they make assumptions around context. In the view of Chung et al., (2012), this can be linked to the vital role of employee transfer and the role of expatriates in building trust between companies, and being willing to learn, adapt and communicate on multiple levels. Research has shown that when an expatriate employee is ill suited to their role, those in the subsidiary would typically stop sharing their knowledge. The implications of this are that clear demonstrations of a lack of trust will inhibit the knowledge sharing process, but to a much greater extent than other theoretical explanations illustrate or allow for.

Furthermore, trust can be easily broken and is not quickly or readily rebuilt (Holten et al., 2016) highlighting the vital importance of a strong social exchange mechanism in order to earn trust and accelerate a willingness to engage in knowledge transfer. Jiang et al., (2013) comment on the perceived significance and value of those sharing knowledge on the part of those receiving knowledge recognising tacit assumptions of reciprocity. If these assumptions are broken, and reciprocity is not demonstrated, this is likely to inhibit future exchanges of knowledge, and damage the relationship of trust as well as damage quality and value of knowledge which is

shared. The implications of this are that assumption should not be made around the sustainability of knowledge transfer without continued work engagement on the part of all of those concerned. Simply because the mechanisms of been established and been found to work once, it should not be assumed that they will remain constant (Paliszkievicz and Koohang, 2013).

3.2 The Knowledge Based View

The knowledge-based view theory argues that knowledge is not only a resource, but the most valuable resource which an organisation can possess (Hörisch et al., 2015). The reason for this being that it complies with the conditions established by Barney (1991) in his work on the resource-based view. Barney established that a resource directly contributes to firm success if it satisfies the conditions of being valuable, rare, non-imitable, and specific to an organisation. Knowledge, obviously, satisfies all of these conditions, and if internal to a firm is within the control of an organisation.

Repeated empirical and meta-analytic studies have demonstrated the robustness of Barney's (1991) theory (Newbert, 2007; Hart and Dowell, 2011), but there is also evidence of firms failing to manage their resources sustainably, which ultimately leads to either an opportunity for competitors, or even in serious cases, organisational decline (Grant, 2002). Treating knowledge as a non-imitable, valuable and internal resource, as opposed to an external one, creates an alternative understanding of knowledge transfer and strategy. Specifically, supporters of the knowledge-based view argue that it is an extension of the resource-based view, because knowledge has specific characteristics which distinguish it from all other types of organisational resource (Rivard et al., 2006). Furthermore, they argue that in modern society, with an increasing reliance on service firms, knowledge has an additional capacity for adaptation and/or expansion which other resources do not, thus inherently making knowledge the most valuable resource of all (Lockett et al., 2009).

This being said, there continues to be some debate in the literature about the validity of the argument that knowledge represents a distinct resource. Long-time strategic theorists such as Grant (2002) argue that this is a flawed assumption, in that knowledge is simply a specific type of intangible tacit resource and does not merit any special treatment. Grant's argument is that a failure to use knowledge as resource has exactly the same impact as a failure to use other resources, and thus the logicity of the argument that knowledge is a special resource fails. In counterargument to this however, there appears to be growing evidence that there are different

typologies of knowledge, specifically intra and inter-firm knowledge transfer creating opportunities through localised and also globalised knowledge (Nag and Gioia, 2012). Rapid changes in technology and systems, specifically software, have also created changes in the external marketplace, shifting demand (Mao et al., 2015). It is the argument of this research study that knowledge is a distinct type of resource and can be used in a way that differs from all other types of resource to create new strategic opportunities, provided that they can be exploited.

Problems continue to abound in respect of treating knowledge as a distinct resource however because of the difficulties of capturing and codifying knowledge, and especially the challenges of disseminating it and utilising it effectively (Bonardi et al., 2015). Knowledge is inherently tacit, and there continue to be challenges around the practicalities of people recognising that the knowledge they possess, and also how they use it. In plain terms, what is obvious to one person is not necessarily obvious to another, which creates an immediate problem in terms of identifying what constitutes knowledge (Hislop et al., 2018). Transferring knowledge is a further layer of difficulty, because knowledge is also contextual, and simply sharing facts across cultural boundaries does not constitute knowledge transfer (Rivard et al., 2006). Knowledge also needs to be embedded to become effective and to deliver value. Again, sharing a list of facts is not the same as transferring knowledge (Dalkir and Beaulieu, 2017), meaning that to secure value for knowledge requires resource investment in the first instance, such as in the form of training, development and mechanisms for knowledge transfer.

Extending the discussion to RKT is the most challenging aspect of all. RKT has the practical impact of reversing the powerbase, with the subsidiary, the assumed weaker party, giving knowledge to the parent firm. The power imbalance arising from knowledge means that it is very likely that the parent company will fail to appreciate the value of localised knowledge to its full extent, thus short-changing itself of the opportunity to exploit knowledge to maintain competitive advantage and a new market (Sanchez-Vidal et al., 2018). Explaining to a subsidiary why their knowledge is important and why it should be shared, particularly if they have been on the receiving end of a power imbalance relationship is likely to be exceptionally challenging. Furthermore, there are likely to be difficulties in embedding the knowledge on a reverse basis if the parent company already considers itself inherently superior (Nair et al., 2018).

It is anticipated the novel contribution of this research through the lens of the knowledge-based view, is that in this particular set of circumstances there is a more balanced power relationship, but crucially parent company actively considers the subsidiary to have valuable knowledge which it is genuinely interested to acquire and utilise. As has been articulated throughout the evaluation of the existing research and theoretical explanations, typically in knowledge transfer, whether direct or reverse, there appears to be a prevailing belief on the part of the parent company that they are inherently superior, and therefore any knowledge they acquire from subsidiary will be interesting but not necessarily valuable, or at least, not as valuable as the knowledge flowing from parent to subsidiary. It is the contention of this research, that parent companies within the GCC are genuinely interested to acquire and exploit knowledge from their subsidiaries in developed economies in order that they can accelerate their knowledge and reinforce their strategic positioning. It is argued that this is a novel interpretation of the knowledge-based view framed within the generalised concept of knowledge transfer, which makes the unique contribution to research in this field.

3.2.1 The Role of Employees in Generating and Transferring Knowledge

Employees are absolutely fundamental to effective knowledge transfer, although Hau et al., (2013) contend that insufficient attention is directed towards the actions, behaviours and attitudes of individual employees in terms of their willingness to share knowledge. Whilst a great deal of attention is directed towards the collective mechanisms of knowledge transfer, theories of creating shared values and norms, and social and cultural perspectives, surprisingly little attention is paid towards the role of individuals. Particularly in the case of individuals having very specific particularly valuable knowledge because of the accumulation of their experience, education and exposure, which are all accepted as core characteristics of knowledge (Hau et al., 2013). According to Chang and Chuang (2011) This can be directly linked to the role of international employees, and those on expatriate assignment, as they are found to be fundamental in the mechanism of knowledge sharing and in building trust between parent and subsidiaries, and also between subsidiaries on both an inter and intra company basis. Those employees engaged on international assignments offer a rare opportunity to take knowledge with them, and also bring knowledge back on their return, which is why it is worthwhile considering the role of expatriates as a mechanism for sharing knowledge and also building trust as part of social exchange.

There are differing opinions regarding the role of expatriates, with some considering the most technically competent should be sent on international assignment, although there is much larger weight of evidence now supporting international assignment being undertaken by employees are willing to learn and adapt (Wiewiora et al., 2013). The critical element however is how employees bring knowledge back to the parent company, and how the parent company uses this knowledge effectively. Research indicates that a worryingly high proportion of parent companies failed to take full advantage of the tacit knowledge obtained by employees on international assignment, and in the process not only do they undermine trust, they also lose a valuable opportunity to exploit knowledge transfer to maximum effect (Lam and Lambermont-Ford, 2010). This attitude is found to be particularly prevalent amongst parent companies in developed economies which ignore or overlook the experiences of employees who they have sent to subsidiaries. This undermines trust and social capital, and also reinforces the view of the subsidiary that they are not valued and appreciated.

If however, a parent company genuinely values the contribution of the subsidiary and uses an international employee to capture such knowledge and bring back valuable contacts necessary to exploit knowledge to maximum effect, this offers a potential means of the organisation collectively positioning itself as a superior provider and securing competitive advantage on the basis of tacit knowledge which has context (Battistella et al., 2016). Relatively speaking, a very small proportion of organisations workforce is likely to have international experience, even within those organisations that are familiar with the concept of international assignment. Principally because there are many logistical practical challenges associated with international assignment, and relatively few employees compared to the overall working population are willing and able to undertake such assignments (Suppiah and Singh Sandhu, 2011). The implications of this are that the role of international employees as a conduit to building trust, social capital and knowledge sharing is under investigated.

The rise of the GCC in terms of willingness to obtain international education and experience suggests potentially a shift in the balance of power which may also contribute to the role of expatriates' assignment in knowledge sharing and transfer. Organisations from within the GCC are very keen to acquire knowledge from developed economies, and transferring this principle to knowledge sharing, it does suggest a shift in the balance of power which is further investigated in this study in terms of the role of trust, social equity, context and perceived value of knowledge when it has been transferred.

3.3 Summary

This chapter has provided a critical explanation of the theoretical framework of the study, grounded in the social psychological lens, and the knowledge-based view. These two theories have been selected for the theoretical foundation of this study, because the former explains the importance of context in the development and sensemaking of knowledge, and the latter describes the way in which organisations capture and utilise knowledge to generate a unique resource. Both of these theories are consistent with the fundamental characteristics of knowledge, which include the contextual nature of knowledge, the dynamism of knowledge relative to context, and also the noted challenges of developing, capturing and disseminating knowledge. Furthermore, both theories recognise the value which stems from organisations capturing and applying their own knowledge but crucially, recognising that simply because the context is different, the knowledge is not diminished. With this theoretical framework in mind, the following chapter discusses the development of hypotheses, and the conceptual framework which underpins this study.

CHAPTER 4: HYPOTHESIS DEVELOPMENT AND CONCEPTUAL FRAMEWORK

4.1 Introduction and Model Development

The fundamental premise of this study is to investigate whether Reverse Knowledge Transfer (RKT) between subsidiary and parent, when the parent is GCC based, is in some way fundamentally differentiated from other similar RKT experiences in other cultural contexts. For many years, research into RKT was founded in the premise of local knowledge exploitation by parents in developed economies from subsidiaries in developing and emerging economies (Cohen and Levinthal, 1990; Gupta and Govindarajan, 1991; Yamin, 1999; Ipe, 2003; Harzing and Noorderhaven, 2006; Chang et al., 2012). The parent in developing economies predominantly seeking exploitation opportunities, whether of labour, knowledge, or supply networks. Research has confirmed that typically localised knowledge of alternative R&D concepts, for example, were not given the same credence as if the intellectual property had originated from the parent or another developed economy (Klien et al., 2009).

However, this view is steadily changing, in recognition that developing and emerging economies are making exceptional gains in many areas (Nair et al., 2018). As Multinational Enterprises (MNEs) based in developing and emerging economies have begun to penetrate developed economies, the purpose and orientation of RKT has begun to shift. Parent firms with subsidiaries in developed economies are not necessarily seeking tangible assets (Pereira, et al., 2016), and this is a fundamental variation from much of the historical discussion in this area, and thus it represents a novel and exciting area of research, and this chapter explains how each of the hypotheses has been drawn from critique in the literature, or gaps in knowledge. It opens with a brief overview of Hofstede's (1984) explanation of culture, and the enduring impact Hofstede's (1984) work has had on the understanding of culture and cross-cultural communication. Following this contextual explanation, each of the variables and their mediating impacts are discussed in detail and in turn.

4.2 The Influence of Hofstede & GLOBE

It is the unspoken nature of what is understood which in the opinion of national cultural expert Hofstede (1984), informs much of the way in which misunderstandings can unintentionally arise in terms of cross-cultural communications. Interested by the way in which different national cultures appear to have unique shared values which characterise cultural norms,

Hofstede investigated the similarities and differences between cultures using large quantitative data sets. The result was the GLOBE study, and the development of the original five dimensions of culture by Hofstede. The original five dimensions were (1) power-distance; (2) individualism; (3) masculinity-femininity; (4) uncertainty avoidance; and (5) long-term orientation. After revisiting the model in the early 2000's, Hofstede added a sixth dimension that of (6) indulgence (Hofstede, 2006).

The basic premise of the model is that generalised cultural norms can be identified and quantified for a large number of nationalities giving some indication of why there may be accord or conflict in communications on a cross-cultural basis. Hofstede was quite clear that the model is not intended to be wholly predictive, and that of course every individual person will be a product of their own norms and experiences, which is why it is important to bear in mind that the current generation of younger managers in the Middle East are likely to be a broader combination of cultural norms than that of their parents. There are other aspects of criticism in relation to Hofstede's model relating to some aspects of the methodology and original history of development (Venaik and Brewer, 2010), but despite these criticisms the model continues to have sustained value and reasonable predictive capacity for at least beginning to consider the possibility of unintentional cross-cultural conflict particularly in international business settings.

To provide an illustration, **Fig.4.1** below compares the cultural norms of Saudi Arabia (blue) and the United Kingdom (purple)². As is immediately obvious, there is only one dimension of moderate similarity - that of masculinity, and three dimensions a very considerable difference, power-distance, individualism, and uncertainty avoidance. The implications of this for cross-cultural communications under the model are likely to be very considerable in terms of knowledge transfer from the perspective of power, willingness to share and trust. The brief application of the model will explain why in more depth. Power-distance is perhaps the most significant element, as countries which score highly on this dimension - and Saudi Arabia scores extremely highly - are typically willing to accept without question that those in positions of authority are part of the natural hierarchy in order of life. This needs no further explanation or justification, and also explains the way in which many organisations are structured in the Middle East which typically has a generalised high power-distance score. Conversely, the UK is one of the lowest scoring countries in this regard, actively challenging the belief in lack of

² The Hofstede model will not allow aggregation of regions for cultural comparison, so one prominent Middle Eastern nation was selected for the purposes of analysis

equality and egalitarianism and being uncomfortable with the idea of rigid organisational hierarchies (Nakata, 2009).

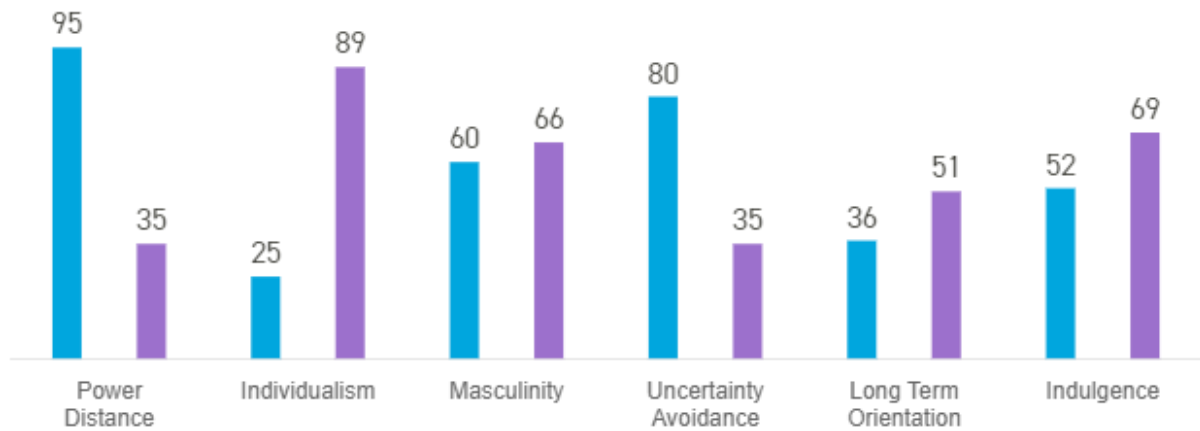


FIGURE 4. 1: HOFSTEDE SAUDI ARABIA AND UK COMPARISON (HOFSTEDE INSIGHTS, 2019, P.1)

Another significant score to consider is the extent to which people in society seek and support individualism or prefer collectivism. As might be anticipated in a nation-state which has strong hierarchies, there are typically a correlation with low individualism - people are accustomed to doing what is right for the group as a collective norm, rather than pursuing individual objectives. This has significant implications negotiations in a business setting, as negotiating from the perspective of a middle eastern culture likely to seek information which will be a benefit to a group or is consistent with hierarchical norms (Venaik and Brewer, 2010). Conversely, the very strong individualism of the UK culture, tends to favour no negotiating position which is right for the individual, or whatever it is they are representing but not beyond this point. These deep assumptions in terms of opening positions sharing knowledge is an experience not articulated but have huge implications for the way in which knowledge is likely to be transferred.

The third dimension which is important in regard to similarities and differences in intercultural communications relates to uncertainty avoidance - and something which often overlaps with long-term orientation. As Hofstede explains, nations which score highly on uncertainty avoidance, as the term suggests, are likely to avoid situations which are uncertain, and they also tend to do this by maintaining strong links to the past and what has worked previously. In contrast, countries which score relatively low in regard to uncertainty can be a lot more adaptive and flexible, and potentially less likely to be concerned about the long-term future, because they are agile and responsive in any event. Again this has significant implications for

knowledge transfer, in as far as knowledge, whilst power is known to be dynamic and fluid, meaning that from cultures which have low uncertainty avoidance there are likely to be willing to share in the knowledge that something new will arrive in any event, and there is nothing to be lost by sharing knowledge (Nakata, 2009).

This being said there are caveats in any culture, and British culture - and also the other cultures it spawned, most notably the US and Australia, have what can be interpreted as double standards which can be confusing for those unaware of their existence in negotiations (Nakata, 2009). Particularly in the case of British culture which on the face of it appears to be unfailingly polite and quite laconic. However, as the high score of masculinity indicates, this is only a surface interpretation, and in fact, underneath the veneer of politeness, British culture can be ruthless with a strong desire to win. An awareness of such layers of culture is critically important in conducting knowledge transfer - and especially so for countries in the GCC that are seeking to harness knowledge from developed economies but may not be fully aware of the nature of the negotiations. In British culture there is famous enduring difficulty of British people not necessarily saying what they mean. In terms of knowledge transfer, this could well have implications in terms of willingness to trust and share knowledge with someone from the GCC has been sent to manage the subsidiary.

This explanation of Hofstede's (1984; 2011; 2019) model has relevance to the development of the hypotheses in the study, because it illustrates foundation for potential misinterpretation in not only the motivations of knowledge transfer, but also its mechanisms. The quite stark differences between Middle Eastern and Western culture are visualised in Hofstede's (2019) model, from which it can be reasonably induced that there is the potential for confusion and misinterpretation from the outset. Furthermore, when attempting to apply Western-centric theories of knowledge transfer and RKT in an alternative cultural setting, it would not be unreasonable to consider that unintentional confusion might well ensue. With this foundation in mind, the remainder of the chapter is devoted to explaining the development of the research hypotheses and the conceptual model.

4.3 Restatement of the Research Objectives and Questions

For ease of reference, the Research Objectives and Research Questions are re-stated here:

The objectives of this research are:

- **O1** - To critically evaluate the nature of RKT from developed economies back to developing economies, whereby the parent company in a developing economy has

superior financial resources but lacks knowledge in relation to developed marketplaces. Specifically, to explore the nature in business services.

- **O2** - To ascertain the impact of mediating variables on the nature of RKT in the form of willingness to share knowledge, trust from subsidiary to parent, and the context of knowledge in order for the knowledge to give value back to the parent company.
- **O3** - To investigate the mechanisms of knowledge transfer in light of these assumed mediating variables to determine whether particular knowledge transfer mechanisms are more suitable and can be explained or understood through existing theory and concepts, or whether a fresh critical interpretation is required.
- **O4** - To determine the distinct characteristics of RKT from developed to developing economies in recognition of the balance of power between a parent and subsidiary and the fact that developing economies are still taking their cue from developed economies in terms of business development, but have superior financial resources for investment and are typically seeking knowledge as a core resource

And the core research question of this thesis is:

***Core Question:** To what extent do multinational firms do headquartered in the GCC extract value and secure sustainable competitive advantage from knowledge captured and returned from their subsidiaries in developed economies?*

The sub-questions are:

- **RQ1** – What role does **social equity, trust** and **power** serve in the **willingness** and motivation to share knowledge and the speed of knowledge transfer
- **RQ2** – What are the most **effective mechanisms** for capturing and returning knowledge from subsidiaries in developed economies to headquarters in the GCC? And what is the impact of contextual **cultural similarity** between them?
- **RQ3** – What **value** does the parent place upon the knowledge captured from the subsidiary, and what **action** does it take based on this perceived value?

4.4 Development of Hypotheses

This study begins from the position that there is something fundamentally distinct about the parent-subsidiary relationship when the parent is based in the GCC. The basis for this position is that there are distinct cultural characteristics associated with organisations established in the

GCC which impact on the way in which organisations operate and are structured, and the way which knowledge is shared and utilised (Klein et al., 2009; Mudambi and Navarra, 2015). One of the critical antecedents of the model developed and utilised in this study is that the nature of power within GCC based organisations is fundamentally differentiated and is directly related to the nature of national culture. Very broadly speaking - and fully acknowledging the differentiations between different countries in the GCC - compared to cultures in developed economies, those in the GCC are considered to be predominantly hierarchical, masculine, and family orientated (Hofstede, 2011; 2015; 2020). The implications of this are that family bonds are incredibly strong, more so than other types of relationship and this, it is hypothesised in this study, is likely to have a significant impact on the willingness and speed of RKT.

Mediating factors which are also likely to impact upon RKT from an overseas subsidiary back to the parent in the GCC, relate to the existence of trust, more likely to be prevalent in hierarchical and family orientated culture (Dalkir, 2018). Also forms and types of knowledge, such as specifically codified as compared to tacit or informal. In this study it is hypothesised that the existence of trust and also the nature of power and culture within GCC based firms means that tacit knowledge, typically some of the most valuable, is a) more likely to be transferred from the subsidiary back to the parent in its 'complete' form (as will be explained), and b) the speed of knowledge transfer is also likely to be accelerated. Further, the GCC parent is, because of cultural norms more likely to send a family member to manage will be intimately involved with an overseas subsidiary (Kalantaridis and Vassilev, 2011; Al-Hadi et al., 2017). The anticipated benefit of this is twofold in as far as the familial bonds are more likely to accelerate the pace of knowledge transfer and the trust in so doing, but also it will be possible to 'translate' the tacit knowledge held within the subsidiary so that it has relevance to the parent within the context of normal operations.

Cross-cultural confusion is an enduring problem which has been widely documented (Vaara et al., 2012; Najafi-Tavani et al., 2015), but as this pair of mediating variables proposes, the differentiating factor of having a trusted family member embedded in the subsidiary offers opportunity to significantly minimise the risks of potential cross-cultural confusion. Moreover, knowledge is less likely to be treated out of context, and still retains its value in terms of creating differential advantage, both within the subsidiary, and within the parent. Without some form of trusted translator between the parent and the subsidiary, this is likely to be an enduring problem. Part of what this research seeks to evaluate, is whether there is a unique nature to this

mediating variable specific to GCC organisations and the way in which they are organised and structured.

With regard to the anticipated outcomes as a result of these unique factors which influence the way that RKT takes place, it is hypothesised that the speed of knowledge transfer, the mechanisms for undertaking knowledge transfer, and the action as a result of knowledge transfer are all positively affected. In simple terms, knowledge from the subsidiary back to the GCC parent is transferred more quickly, in a form which can be fully understood, conceptualised and contextualised (and thus less likely to be distorted and misunderstood), and is valued by the parent and so is acted upon as a source of competitive advantage. This is only possible, it is suggested in this research, because the unique nature of the relationship between the GCC parent and its overseas subsidiary, enacted through trust embedded in the culture GCC firms because of familial bonds and power relationships. To a Western mindset, such power relationships can be misunderstood and considered to be overly hierarchical and fail to take account of meritocracy (Rice, 2003; Akaka and Alden, 2010; Jaeger and Alden, 2013; Bengoa and Kaufmann, 2014). It is counter-argued in this study that in specific circumstances the power and hierarchical relationship more beneficial than meritocracy, because it facilitates the existence of cultural translation due to an extremely strong bond of trust. It is this combination of factors which creates the conditions for a differentiated, and possibly superior form of RKT specific to GCC based firms with overseas subsidiaries either in developed or other developing and emerging economies. Accordingly, the hypotheses are developed from this perspective as follows:

4.4.1 Antecedents: Power and Culture

4.4.1.1 Power

Understanding the unique conditions in which GCC parent firms operate relative to cultural norms is considered to be a significant antecedent in explaining the nature of effective RKT from an overseas subsidiary back to the GCC based parent. A growing body of contemporary research confirms that the perception of power held by parent over a subsidiary significantly influences the extent of RKT (Khan et al., 2018) - i.e. does the subsidiary share complete knowledge, and, critically, that it describe the context of that knowledge which can be utilised as a differentiating factor in competitive advantage when exploiting the knowledge at a later stage. A parent which has a great deal of power, and is trusted to use knowledge wisely, is

tentatively shown to benefit markedly more significantly from RKT in terms of the completeness and context of knowledge which it is other direct competitors do not necessarily have (Rice, 2003; Lee et al., 2018). Furthermore, the speed of RKT when the parent holds a high degree of power is also shown to be positively influenced (Dalkir, 2018). In a global world where the pace of business has already accelerated rapidly, first entrant or first mover advantage can have a significant financial benefit (Aldulaimi, 2015). As such, it might be concluded that knowledge in this form can have significant financial implications.

4.4.1.2 Culture

With reference to the type of knowledge shared, this is concerned with the completeness and context of knowledge. Codified knowledge, for example documented efficient procedures are quite easy to transfer across cultures and throughout an organisation (Dalkir, 2018). The transfer of such documentation is not of course a guarantee that the knowledge will be acted upon, but the knowledge in this form is relatively easy to share. As research into value chains and supply chains confirms, greater benefits can be obtained if the *way* in which this knowledge is used as a source of differentiation (Saliola and Zanfei, 2009). This is where the completeness and context of information and knowledge matters in as far as if the subsidiary is able to explain how they are able to conduct their processes more efficiently, and contextualise this within working norms, this is a distinct nonreplicable source of advantage.

Assumptions about working patterns can often be lost in cultural translations (Lee et al., 2018), which is consistent with the work of Hofstede (1984), and so the power relationship between parent and subsidiary, with a trusted family member as a conduit to ‘translate’ between the two, potentially offers a very significant source of advantage as a significant antecedent to the conditions of knowledge transfer. Moreover, a trusted family member who is embedded in a subsidiary is markedly more likely to be willing to share complete and contextualised knowledge, as a direct result of the power relationship and cultural norms (Rice, 2003). It is this unique aspect which creates a unique positioning and potential for GCC parent with overseas subsidiaries, and in turn gives rise to the first research hypothesis, that the nature of organisational hierarchy (power) and relationships between trusted members is specific to the culture of GCC headquartered firms which increases the likelihood of effective RKT.

More recent studies which have examined the role of power and culture in knowledge transfer, examine a subtly differentiated perspective of power embedded in cultural norms, thus

illustrating the linkage between power and culture. For example, the work of Ciabuschi et al., (2017), treated the embeddedness of political regimes in developing and emerging economies (i.e. China) as a proxy for power, found this directly affected the way in which parent firms in this context would behave. Ciabuschi et al., (2017) established that parent firms would become reluctant to share their knowledge with subsidiaries, not because they had no interest in the subsidiary succeeding, but because they were cautious about knowledge leakage and the oversight of the political regime in which the parent was situated. This led to some caution in knowledge transfer, contrary to the greater body of research opinion, but consistent with cross-cultural recognition of the role of power in knowledge transfer (e.g. Khan et al., 2018).

Su et al., (2020) also examined culture/power relationships where the parent is Chinese-based, examining relationships from 177 Chinese-based headquarters and their respective power-distance relationship with subsidiaries. The work of Su et al., (2020) consistently revealed that where strong political ties existed between the Chinese headquarters in the Chinese government and prevailing political regime, the greater the distance between the parent and the subsidiary. The implications of the role of power in the situation are quite considerable, in as far as it is quite clear that the parent firm because of not only the cultural but presumably also geographical proximity felt unable or unwilling to share their valuable knowledge with their subsidiaries, to mutual collaborative benefit. This finding offers further support for the interpretation that where there is a close power relationship at national cultural level, this directly affects the way in which the parent firm behaves. What is unclear from the work of Su et al., (2020) was precisely what mediating factors would cause a Chinese based parent with international subsidiaries to have weaker ties with the government, and thus greater freedom to share knowledge the competitive advantage.

In complete contrast to the findings in the study of Ciabuschi et al., (2017) and Su et al., (2020), Nair et al., (2018) conducted a very similar piece of research with regard to the role of power in knowledge transfer, but the parent firm was based in India, and not China. Nair et al., (2018) found that the Indian-based parent was more than willing to share knowledge in order to help the UK-subsiary succeed, and the knowledge which the Indian parents shared related to more efficient modes of production which were less labour-intensive. This valuable knowledge supported the subsidiary, but crucially revealed strongly differentiated attitudes to power in the home countries of the parent firms, which directly influenced the way in which the parent firms behaved in terms of their power led relationship. To summarise, in China, the research of both Ciabuschi et al., (2017) and Su et al., (2020) demonstrate that power is used as a mechanism

of cultural control, at national level and also at organisational level leading the Chinese firm to, paradoxically, stymie the efforts of the subsidiary in terms of knowledge transfer. Entirely conversely, Nair et al., (2018) found that national cultural norms in India also directly affected organisational activities when the parent was in India, and which directly and positively impacted collaboration and knowledge transfer, demonstrated using quantitative research and a partial least squares model.

The implications which can be drawn from the comparison of these pieces of extent research are quite clear in that culture plays a very significant role in the way in which power is enacted in organisations, particularly the way that it affects parent firms in different parts of the world. This line of research supports the position of this study, that there are factors unique to the culture of organisations which are directly linked to the national culture of where the headquarters and/or parent firm is located which in turn influence activities around knowledge transfer both forward and reverse. A 'closed' introspective culture such as China, faces a paradox in that it wishes to expand internationally, but refuses to share its knowledge fearing threat (Ciabuschi et al., 2017; Hofstede, 2019). The power displayed within China is clearly strong, but adversely impacts organisational knowledge transfer. Conversely, a more 'open' culture such as that of India, encourages knowledge transfer to mutual collaborative benefit. The power of the Indian parent firm is considerable because of its notable tangible and intangible resources, and there is clearly confidence in the parent firm in the benefit of sharing this knowledge. It is therefore argued culture infuses national attitudes which directly translate to organisational behaviour, in terms of the power displayed by parent firms over their subsidiaries.

On the basis of existing evidence and studies it is therefore argued that the existence of a power relationship between a parent and subsidiary directly influences knowledge transfer. This as an of itself is a reasonable proposition, as it would be expected that a parent has some form of power over a subsidiary. However, this relationship of power is mediated by culture as recent studies have shown in particular relation to parent firms located in developing and emerging economies. Where there is a strong political link to a national government, this directly (and arguably adversely) impacts the relationship of knowledge transfer contingent upon national cultural norms. This situation has been found to be true into the major emerging economies, China and India, confirming that politically conformist regimes such as China dislike knowledge transfer, but more culturally open economies such as India actively welcomed knowledge transfer with ensuing benefits. It is therefore suggested that the first test the

relationship of knowledge transfer should be one which examines the mediating effect of culture on power and subsequent knowledge transfer, which is expressed as follows:

H1 *the relationship between organisational **power** and effectiveness of reverse knowledge transfer is mediated by the **culture** of the GCC based parent firm.*

4.4.2 Mediators: Trust, Social Equity and Willingness

4.4.2.1 Trust and Willingness

It is not a surprise to state that the existence of trust between a parent and subsidiary facilitates - and also potentially accelerates the speed of - knowledge transfer. Multiple studies have been consistent in this finding that when the subsidiary trusts the parent firm, they are more willing to share knowledge (Islam et al., 2015), and the subsidiary is more likely to share knowledge the earliest opportunity (Lee and Wu, 2010; Najafi-Tavani et al., 2012). Furthermore, studies which have specifically examined the converse, in terms of unknown absence of trust (identified through the discovery of absence of information transfer) have found that subsidiaries will either wilfully withhold information or be judicious in what information they do transfer (Andersson et al., 2015). An analogy would be an employee ‘working to rule’, in as far as the bare minimum conditions of work are satisfied, but the additional value in the form of depth, engagement or completeness is absent, directly because of a lack of trust.

This might be considered as a form of psychological contract between the parent in the subsidiary, something also documented in Human Resources Management (HRM) research in relation to the existence of trust between an employee and an employer, and the subsequent willingness of an employee to fully engage in the workplace. The additional dimension of such a ‘psychological contract’ (O’Neill and Adya, 2007) between subsidiary and parent, is that its absence is likely to result in the subsidiary failing to expend effort in explaining the context of the knowledge, thus explaining why it is valuable. As elucidated previously in relation to the antecedents of knowledge transfer, the completeness and contextual translation of this knowledge is arguably where the true value of RKT actually rests, and so the absence of this knowledge and context cannot be overstated in its importance.

More fundamentally, the absence of practical mechanisms to engage in knowledge transfer due to an absence of trust are practical inhibitor to effective RKT (Evans et al., 2015). As Kumar (2013) observes, it is essential to recognise that, in context, knowledge equates to a form of power provided that the knowledge can be exploited. In order for a subsidiary to share their

power in the form of knowledge, they must be willing and able to do so, which is only possible when a state of trust between the parties exists. Numerous models and theories of strategic and sustainable competitive advantage confirm that intangible resources, such as knowledge, organisational trust, brand and reputation, innovation in the form of R&D are the elements most likely to deliver organisational advantage on a consistent basis (Saliola and Zanfei, 2009; Lee et al., 2018).

More recent studies which have examined the role of trust in knowledge transfer include the work of Kong (2018) who found that for knowledge transfer to be effective there must be a strong localised level of trust between expatriate managers and local managers or employees in a manner which might be considered one individual agency. Mindful that one aspect of this research project is that posits the existence of a unique relationship between the parent and the subsidiary on the basis of the parent having sent a family member or trusted employee to the subsidiary, the implications of the finding of the work of Kong (2018) are that unless the expatriate (i.e. trusted GCC expatriate manager) can gain the trust of local employees, they will be some limitations to the extent or quality of knowledge which is shared and is passed back to the parent. Oh et al., (2016) also found trust to be a significant mediating variable in knowledge transfer, operating at multiple levels. Oh et al., (2016) found evidence that where there is a bilateral relationship of trust, between a parent and the subsidiary then there is greater propensity for knowledge transfer. What further strengthens knowledge transfer is the existence of trust between subsidiaries, something also found in other existing research such as the work of Yang et al., (2008) and Driffield et al., (2016). The unique contribution of Oh et al., (2016) in terms of relevance to this study is the exponential increase in knowledge transfer on the basis of a bilateral relationship of trust and will particularly, the contextualisation of knowledge shared by the subsidiary in terms of local market information. In plain terms, subsidiaries will share information more quickly, i.e. as soon as it becomes obvious that it relevant, when there is a strong bilateral relationship of trust.

For a subsidiary to share such information, for example intellectual property or unique knowledge about a localised market, they are effectively handing over power. Where there is a strong relationship of trust and existing power hierarchy because cultural norms in the GCC, it is suggested that this is more likely to be effective. In other cultural settings, it would be anticipated that where meritocracy is a driving factor for organisational leadership, anyone who has secured the power in this way would be exceptionally reluctant to share it and thus potentially weaken their position (Rice, 2003; Islam et al., 2015). This explains part of the

complex relationship between trust, power and effective RKT. It also serves to position and develop the second research hypothesis, that the existence of trust between a parent and subsidiary positively influences the speed and willingness of the subsidiary to engage in knowledge transfer, articulated thus:

H2 *the relationship between the **speed** of knowledge transfer and the **willingness** of the subsidiary to engage in knowledge transfer is mediated by the existence of **trust** between the parent and subsidiary firm*

4.4.2.2 Social Equity and Willingness

As articulated in chapter 3 with regards to the explanation and analysis of the social psychological lens, context is particularly relevant in terms of social equity, and the inter-relationships of social equity with willingness to transfer knowledge. In other words, the need for there to be a shared mutual understanding of what is being discussed, and its perceived relative value and willingness to share as demonstrated in the work of Ko et al., (2005), Li (2005) and also Ringberg and Reihlen (2008). Chen and Lovvorn (2011) and Evans et al., (2015) both argue that social equity stems from the antecedents of power and culture, and also trust in the sense that employees engaged themselves in the culture of the organisation, and trust in their colleagues when both sharing and receiving knowledge and information. The role of power in social equity impact on the extent to which trust is exercise and, according to Vaara et al., (2012) this can work at multiple levels.

As an extension of this discussion, Peltokorpi and Yamao (2017) theorise and test the concept of shared organisational language and vision, demonstrating that the more frequently parent and subsidiary interact, the more likely it is that they both come to have a shared understanding of organisational language, underpinning the vision and values of the firm. Understanding shared inherent language helps to increase both the speed and flow of knowledge on a dual basis. This work extends the study of Li (2005) originally established importance of shared organisational vision in multinational organisations for efficiency knowledge transfer. What Peltokorpi and Yamao (2017) have further demonstrated is that over time, as the relationship between the parent and subsidiary builds, there comes to be a shared understanding of organisational language. This might be understood as particular organisational acronyms or phrases which conceptualise particular knowledge led concepts. Where these are unique to the organisation Peltokorpi and Yamao (2017) demonstrate that there is improved knowledge flow.

What Peltokorpi and Yamao (2017) do not confirm however, is whether proactive attempts to deliberately introduce such organisational language have the same effect, or whether there is greater efficiency in knowledge transfer where this shared language is an organic process rather than a forced one.

An additional dimension to social equity is explored in the work of Burmeister et al., (2018) which is also briefly worthy of mention. Burmeister, et al., (2018) considered the role of expatriates as conduits of knowledge transfer because of their shared experience in different parts of the organisation both 'at home' and is part of their overseas placements. Burmeister, et al., (2018) demonstrated the consistent existence of a dyadic relationship, or in other words, jewel knowledge flows channelled through expatriates. The importance of this aspect in relation to this particular study is worthy of mention, because it has been posited in this particular research there are factors unique to the characteristics of GCC headquartered firms where it is more likely that the subsidiary will have some close connection to the parent through a specific individual who is an expatriate, with close social ties to the parent firm. Therefore, the likelihood of a dyadic relationship through such an expatriate could be potentially pivotal in the efficacy and efficiency of RKT.

Lee et al., (2018) examining the moderating effects of organizational governance types, found similar dual information flows, although not necessarily through expatriates but rather as a feature of the age of the joint venture relationship. Likewise, Ai and Tan (2020) who explored knowledge flows pre and post-acquisition in international mergers. Likewise, the work of Liu and Meyer (2020) who found that the existence of individuals within organisations who could serve as vertical and horizontal 'boundary spanners' was a significant factor in the existence of social capital and thus willingness to engage in knowledge transfer. These so-called boundary spanners with those who have social capital in multiple social contexts, which supports the proposition of this research, that there are individuals who serve as conduits of knowledge transfer with the parent is in the GCC, and a trusted family member is sent from the GCC parent to be directly involved in an overseas subsidiary. Boundary spanning therefore takes place through the role of this individual who garners social equity in multiple contexts, and consistent with the work of Kong (2018) generates trust within the subsidiary, thus encouraging subsidiary members to share their valuable knowledge. It can be reasonably induced that this knowledge sharing would not be possible without the existence of trust and social equity.

Extending this logical induction, trust might thus exist because of the situated culture of the organisation, and firm belief in organisational hierarchy, which, broadly speaking would be typical of a Middle Eastern culture. Also, trust might exist because of social connections, which also links to social equity, for example because of familial relationships or close family ties - loosely linked to the notion of 'wasta' (Barnett et al., 2013). However, the converse might also be true, in that if there is an inherent lack of trust because of cultural clash and misunderstanding, then social equity might be diminished. For these reasons it is important to understand the mediating variable social equity and its interrelationship with trust and willingness to share knowledge, particularly that which is generated within the organisation as a form of intellectual property.

It might also be reasonably induced that where social equity exists on the basis of a foundation of trust and to some extent culture, then there is a greater willingness to share knowledge, and also a greater willingness to share knowledge quickly and in full (Vaara et al., 2012). As also described previously, the judicious exclusion of certain facets of knowledge are an exercise in power particularly from a junior employee to a senior, or a subsidiary organisation to their parent. The converse, full and frank information exchange leading to knowledge generation and subsequent dissemination is arguably more likely to take place on the basis of the existence of social equity, trust and sense of parity (Evans et al., 2015). Where these antecedent conditions are present, it is argued therefore that social equity plays a mediating role in the speed of knowledge transfer, and also the willingness of the subsidiary to engage in knowledge transfer which gives rise to the second research hypothesis.

As a number of existing studies reveal, many parent firms seemingly struggle with both the capture and codification of knowledge subsequent to effective distribution and utilisation. For example, the studies of Kumar (2013) and also Wiewiora et al., (2013) demonstrate that in many parent-subsidiary relationships, firms are typically good at the collection and codification of knowledge, but not its effective distribution. Or, alternatively, they may struggle to collect and codify knowledge, but they do have a good mechanism for distribution through centralised sources. It appears to be the case that lack of organisational trust both inter-and intra-company is a significant inhibiting factor (i.e. mediating variable). As such, in this research evaluating the unique position of a family member in the subsidiary as a conduit to knowledge transfer is, it is hypothesised, a critical factor in the speed and completeness of RKT and its subsequent utilisation.

A seminal study by Muthusamy and White (2005) demonstrated that perceived social equity is significant influencing variable in relation to the efficacy of RKT. Building on the mediating variable above in regard to the perceived treatment of knowledge by the parent from the subsidiary, a paternalistic and implied condescending attitude on the part of the parent will ultimately undermine the willingness of any subsidiary to engage in RKT. Further studies such as that by Noorderhaven and Harzing (2009) and Burmeister et al., (2015) confirm this finding, and are consistent in their interpretation that if the parent fails to appreciate the value of both codified and tacit knowledge from the subsidiary, even if at first glance it does not appear to be valuable information, then this will damage the long-term relationship and future potential of RKT.

To prevent the situation manifesting itself, Song (2014) strongly emphasises the critical importance of creating a sense of social equity within the subsidiary. Mechanisms for so doing have been found to include trust, consistent with the research of Chen and Lovvorn (2011) and Barnett et al., (2013), and also shared cultural values as well as a further unique dimension of mutual respect. Many studies have shown that shared cultural values and mutual respect are often absent as additional layers or depth in the nature of the relationship between parent and subsidiary, because of the geographical/cultural gap and lack of perceived value of information knowledge on the part of the parent (Lee et al., 2018). What is potentially unique about the parent-subsidiary relationship in relation to GCC based parents is as documented extensively above, these outcome variables are already inherently present because of the power culture relationship embedded in familial ties.

The research of Hofstede (2011; 2015; 2020) consistently confirms that geographical distance broadens likely cultural distance with corresponding increased likelihood of cultural misunderstanding and even conflict. There are some rare exceptions whereby there are historical ties between geographically dispersed nations (often due to former colonialization) but these are the exception rather than the rule (Hofstede, 2015). However, it is posited in this research that if the subsidiary is managed by family member, as a direct consequence of the familial ties power cultural norms of the GCC, alongside the capacity to 'translate' between cultures, there will be mutual trust and respect which will create a differentiated outcome which is beneficial to the parent and subsidiary.

It is also tentatively considered that the pre-existence of this trust and respect alongside mechanisms for transfer and perceived social equity will accelerate the pace and completeness

of knowledge transfer, and willingness to transfer knowledge, and this in turn can be used by organisations as a source of competitive advantage. This can be encapsulated in the third research hypothesis, that if the subsidiary perceives that they are considered to be socially equal (i.e. social equity is present) then this positively influences the willingness of the subsidiary to engage in knowledge transfer, and also the speed at which they are willing to do so. This is articulated as follows:

H3 *the relationship of **trust** between subsidiary and the parent and the **willingness** of the subsidiary to engage in knowledge transfer is mediated by the existence of **social equity**.*

4.4.3 Mediator: Modes of Knowledge Transfer (mechanism)

On the basis that it is reasonable to assume that organisational knowledge exists, and that the subsidiary is willing to share the knowledge promptly, and, further that the parent is willing to utilise or exploit the knowledge, the next issue to consider is *how* the knowledge is transferred. It is posited by Gupta and Govindarajan (1991) and Hansen (2002) that the mode or mechanism of knowledge transfer is an influencing factor in the success of knowledge transfer and the perceived subsequent value accruing from knowledge. Arguably, it is impossible for the parent organisation to exploit its knowledge until the knowledge has been transferred and disseminated, so the modes, forms and mechanisms of knowledge transfer are an important variable to consider. Accordingly, points to incorporate within the mechanisms of knowledge transfer relate to the typologies of knowledge - fundamentally explicit and tacit (Nonaka and Tachechi, 1995), and then how these distinct forms of knowledge are captured, codified and distributed. It is the position of this thesis, that when antecedent and mediating variables of trust, social equity and shared cultural values are present (consistent with the work of Li, 2005), the mechanisms of knowledge transfer work more effectively because there is a particular form of understanding between the subsidiary in the parent given the nature of the organisational culture and the parent- subsidiary relationship. More recent research such as that of Liu and Meyer (2020) supports this position, framed as what Liu and Meyer (2020) term as ‘boundary spanners’, or those aspects of internal organisational capability (modes, mechanisms or individuals) which span communication and knowledge transfer boundaries on a cross cultural basis.

Knowledge can be classified under a number of typologies, the most obvious of which relate to the difference between codified knowledge and tacit knowledge (Dalkir, 2018). Clear examples of codified knowledge include documented procedures and processes which reveal

opportunities for efficiency gains or describe in detail market opportunities. Tacit knowledge is by definition not codified, but is often, perhaps paradoxically, more valuable than codified knowledge (Lee et al., 2018). Such examples might include knowledge of supplier networks or the relationship between the business and its customers which is strong and is a potential protection against occasional service failure. As described in the introduction of this chapter, traditionally, knowledge transfer from subsidiary to parent with the parent is in a developed economy considered such tacit knowledge to be secondary, and whilst occasionally useful, not of primary importance (Wong et al., 2008; Williams and Lee, 2016). As MNEs have grown from developing and emerging economies, precisely the opposite has become true and MNEs from developing economies are actively seeking this valuable tacit knowledge as a form of market differentiation.

It is important to recognise that codified knowledge has value, particularly as alluded to above in relation to the fact that the way in which this codified knowledge is used can create a source of differentiation. This is a concept recognised in value chains for example (Lee et al., 2018), whereby even if it is obvious to a competitor how an organisation arranges its supply chain, additional value can be extrapolated from the nature of relationships between stakeholders, whether internal or external. In an intra-and interorganisational setting in relation to codified knowledge transfer, the evidence tends to suggest that the culture of the organisation has a strong impact on the extent to which subsidiaries share codified knowledge both with the parent, but also other subsidiaries. If the parent has pitted the subsidiaries against one another in a highly competitive manner, then unsurprisingly subsidiaries will be unlikely to support one another in terms of knowledge transfer (Van Wijk et al., 2008). Conversely, some studies have found that if the subsidiaries are united in their mistrust of the parent, they will support one another whilst actively withholding knowledge and information from the parent (Easterby-Smith et al., 2008). As such the dynamic is complex and unsurprisingly again, it is preferable to all stakeholders if the knowledge contribution is openly acknowledged as this will influence future likelihood of fast, comprehensive and fully documented knowledge sharing.

Tacit knowledge is markedly more challenging to address, but is also widely recognised as being invaluable in terms of creating differential advantage (Ambos and Ambos, 2009; Ammabad et al., 2016). As noted previously, and consistently across several studies, a fractious relationship between a parent and subsidiary will with near certainty result in the subsidiary actively or judiciously withholding information which could be valuable, such as the context of knowledge or non-documented elements. A more mundane explanation is put forward by

Dalkir (2018) in terms of the process of unconscious consciousness. In other words, someone is so good at what they do they could not even describe how they are capable of doing it in any event because they are so practised and confident. Such individuals might not be actively aware that they hold extremely valuable knowledge, and so the nominal withholding of knowledge is not deliberate but could be impactful.

A further challenge to address in terms of the nature of tacit knowledge, is found in the parent-subsidiary dynamic (Bezerra et al., 2013). Again, historically there is evidence to suggest that parent firms in developed economies could be patronising towards their overseas subsidiaries, resulting in a perceived or real attitude on the part of the subsidiary that the parent is not particularly interested in the subsidiaries' knowledge, because the parent believes, hubristically, that due to the size and superior resources that they knowledge is more valuable. This rather defeats the purpose of engaging in effective RKT, and as Cameron and Quinn (2011) confirm, if the subsidiary suspect this to be the case, then the parent firms should not be in any way surprised if the subsidiary gradually stops sharing information, because there is a perception that the knowledge is not valued. The remedy to this would arguably be that even if in the first instance knowledge is not perceived as valuable, this is not a reason to dampen the willingness to do so, as it is likely that over time as the relationship strengthens and builds, unanticipated valuable knowledge will be transferred.

Najafi-Tavani et al., (2012; 2015) variously examined how different factors influence the modes and mechanisms of knowledge transfer, or in plain terms, and understanding of exactly how knowledge is transferred, both forward and reverse. In the 2012 study, Najafi-Tavani et al., Focused particularly on subsidiary characteristics and their role as mediating variables in terms of the modes and mechanisms of knowledge transfer and subsequent efficacy. These characteristics included the willingness of the subsidiary to share knowledge, something which has already been extensively discussed, but in the findings of Najafi-Tavani et al., external embeddedness of the subsidiary (i.e. how embedded they were with the parent) and relationship characteristics between the parent and the subsidiary had a powerful influence on how a subsidiary would share knowledge both with informal mechanisms, i.e. structured forms of knowledge transfer and also informal mechanisms. Was not a surprise to find in the 2012 study of Najafi-Tavani et al., that both formal and informal modes / mechanisms of transfer are necessary and interlaced, that without both, and a degree of contextual embeddedness, then the efficacy of knowledge transfer would be adversely affected.

Extending their research in 2015, Najafi-Tavani et al., went on to focus on the role of internal embeddedness, and particularly the role of socialisation mechanisms, i.e. social equity as a mediating influence in terms of the efficacy of differing modes and/or mechanisms of knowledge transfer. In other words, evaluating the interrelationship between internal embeddedness between the subsidiary in the parent, and establishing whether formal or tacit approaches to knowledge transfer were more strongly affected, with subsequent impact on the efficacy of knowledge transfer. That is to say, can apparently confident that the knowledge has been transferred in full, and in context giving the necessary value which distinguishes it as a source of competitive advantage. What might be considered as localisation advantages, or unique knowledge of a particular process or way of doing business.

In the 2015 study particularly, Najafi-Tavani et al., revealed that perhaps counterintuitively, where subsidiaries have a greater degree of autonomy, they are more effective knowledge transfer, and some are willing to engage in knowledge transfer using a combination of formal and informal mechanisms. On the one hand this might be regarded as counterintuitive, because if it is argued that power is an important antecedent variable, then how can it be the case that a subsidiary with a high degree of autonomy employing we compelled the part of the parent, is actually better at sharing knowledge. But as Najafi-Tavani et al., (2015) illustrate, where the parent has delegated the power and authority to the subsidiary, thereby demonstrating a high degree of trust in the subsidiary, this trust is repaid in the form of full and frank knowledge transfer. The existence of trust, as found repeatedly in previous studies is imperative in underpinning social equity, and combined with delegated power and authority actually gives a subsidiary greater confidence in knowledge transfer, because they know that they are trusted to operate in the way that best suits the local environment whilst maintaining consistency with parental expectations.

To develop an anthropomorphic analogy, when the parent trusts the child to do what is best, it can often be the case that the child recognises and responds to the trust, behaving in a responsible or appropriate manner to demonstrate capability and seek praise reward or recognition from the parent. This explanation would be one interpretation of the findings in the work of Najafi-Tavani et al., And their 2015 study particularly, which conclusively demonstrated using an empirical test, that where the subsidiary has autonomy and power in their own right, which is delegated from the authority of the parent, then the subsidiary repays this trust in kind, with high quality knowledge transfer, which is delivered through formal and informal mechanisms. This line of research also illustrates the interrelated nature of the

mediating variables of trust, social equity, and differing forms of knowledge transfer which can be either formal or informal. It might be reasonably concluded, therefore, that without this combination of variables, in a particular arrangement, then efficient knowledge transfer cannot take place.

A potential limitation of the work of Najafi-Tavani et al., (2012; 2015) is that they did not give particular consideration to other mediating variables which in other studies were also shown to be particularly important. Most notably the work of Peng et al., (2017) and her finding regarding the importance of the age of the subsidiary, and by implication the influencing effect of whether the subsidiary was acquired or established. Taking the combined work of Najafi-Tavani et al., (2012; 2015) and Peng et al., (2017) as two complementary explanations for the respective efficacy of knowledge transfer from subsidiary to parent, then it might be reasonably considered that the modes/mechanisms of knowledge transfer are positively influenced by factors including but not limited to, trust, social equity and willingness to transfer. It is therefore suggested in this research that without the mediating impact of trust, social equity and willingness, then there will be limitations on the efficacy of knowledge transfer irrespective of whether the knowledge is being transferred using formal informal mechanisms. What Najafi-Tavani et al., (2012; 2015) have demonstrated more than one occasion is that the modes and mechanisms of knowledge transfer, particularly formal and informal, are impacted by the existence of intangible mediating variables, implying that it is important to understand the varying influence of these mediating elements on established means of sharing knowledge.

Thus, in order to better understand the mechanisms and nature of knowledge transfer gives rise to the fourth research hypothesis (also linked to the outcome variables), that the modes and mechanisms of knowledge transfer are strongly influenced by organisational culture which in turn influences the nature of the parent-subsidiary relationship and a willingness to engage in full and frank knowledge transfer at an appropriate pace. Furthermore, the nature and mechanisms of knowledge transfer are strongly influenced the contextual cultural similarity and difference between the parent and subsidiary, which, it is posited, has unique characteristics associated with GCC headquartered firms with subsidiaries in developed economies. The fourth research hypothesis is therefore articulated as:

H4 *the relationship between the **mechanisms of knowledge transfer** and modes of knowledge transfer is mediated by cultural similarities between the parent and the subsidiary firm.*

4.4.4 Outcomes: Types of Knowledge Transferred

Building on the preceding hypotheses, regarding the antecedent variables power and culture, the mediators of trust and social equity, and also modes and mechanisms of knowledge capture and transfer, the next step in the process is considering how quickly the parent organisation acts upon the knowledge which it has received through the mechanism of RKT, and thus how quickly and effectively exploit the knowledge in order to secure competitive advantage. It is posited in the literature by Ambos et al., (2005) and Miesing et al., (2007) that different types of knowledge transfer are relevant, distinguishing between formal confined knowledge, and latent or tacit knowledge, the latter being considered as equally important to procedural knowledge in a multi-cultural setting.

A further dimension of valuing knowledge from the subsidiary, is that research suggests that the parent is likely to use the knowledge more quickly, and this could well have a positive financial implication. So far, relatively few studies have explicitly examined this dimension of the value of RKT from subsidiary to parent a subsequent organisational action, but consistent with the strategic principle first entrant advantage or first mover advantage (Lee et al., 2018), if the parent is able to utilise the knowledge obtained from subsidiary more quickly than its competitors, there is a logical likelihood of improved organisational outcomes. It would be anticipated that a parent is more likely to make prompt use of knowledge if values the knowledge in the first instance. The paternalistic attitude towards subsidiary knowledge described by both Noorderhaven and Harzing (2009) and Burmeister et al., (2015) infers that relatively little use is made of the knowledge, and it is filed away for subsequent potential utilisation or partial utilisation at an unspecified date. Conversely, if GCC based parent firms are actively seeking knowledge, because they place greater value on this than tangible assets, then it is likely that they will act upon the knowledge once they have received it.

Some studies have examined the speed of knowledge exploitation both inter-and intra-organisation and found, on an unanticipated basis, that often a mutual dislike or distrust of the parent can and does result in subsidiaries sharing and embedding knowledge more quickly between themselves before sharing with the parent firm (Easterby-Smith et al., 2008). One possible explanation for this relates to a societal bond of some variety between key employees in the subsidiaries consistent with the suggestions of O'Neill and Adya (2007) and Barnett et al., (2013). For example, these employees have worked together previously, have a long history or some other form of mutual trust or shared bond meaning that they are willing to help one another because of an individual relationship more so than any other factor. This would be

consistent with the explanation of social equity as described by Chen et al., (2012) in as far as the individuals in the subsidiary know that their knowledge and input is valued. There is some support for this concept found amongst supply chain networks whereby distribution depots might be willing to help one another, even though they operate in different organisations (Lee et al., 2018). The nature of the relationship appears to be based on personal trust more so than organisational edict, and again this is consistent with the idea of social equity and some form of psychological contract. Potentially this explains the way in which some extended organisations are able to exploit knowledge more quickly and use it to competitive advantage.

Furthermore, stemming from the unique dimension of cultural norms in the GCC and the hierarchical/power relationship it might be reasonably anticipated that the GCC parent will be able to embed the knowledge more quickly, because of the bonds of trust and social equity (Mellahi et al., 2011). Extending this further, if the knowledge can be embedded, acted upon and properly 'translated' that is to say, described in a way which can be understood through a cultural lens, then there could be quite significant potential for sustained competitive advantage (Fong-Boh et al., 2013). One possible problem which could be foreseen in the circumstances is that traditionalism is deeply embedded in much of GCC culture. Implications of this are that it might be difficult to encourage significant changes in behavioural patterns, norms or processes if the suggested changes contradict strongly with what would be considered culturally acceptable (Budhwar and Mellahi, 2007). This being said, culture can and does evolve, and if GCC based firms are actively seeking alternative knowledge and information, then it could be inferred from this that such organisations are willing to make adjustments in order to achieve their long-term growth goals.

More recently research has suggested that there is a steady shift in this presumption away from the paternalistic attitude of the parent. A more open relationship towards perceived value of knowledge has been found in several studies where the parent is in an emerging/developing economy, and the subsidiary is in a developed economy. For example, Nair et al., (2015) found some support for this interpretation, although their research focused on the role of the perceived competencies of the subsidiary, and also the interrelationship of perceived competencies and perceived relevance of the knowledge to the parent (Nair et al., 2016). In other words, the parent was seeking specific types of knowledge which they believed the subsidiary to be in possession of, and made active steps to capture this knowledge. Research by Fu et al., (2018) supports this interpretation, although it is noted that the work of Fu et al., (2018) examining the activities of a Chinese based parent could be an anomaly, on the basis that previous studies

examining the paternalistic attitudes of Chinese based parents (e.g. Ciabuschi et al., 2017; Wang et al., 2019 and Su et al., 2020) typically found that Chinese based parents were in many ways even more paternalistic and hubristic than parent firms based in developing economies.

It could therefore potentially be suggested that it is the nature of knowledge sought by the organisation examined by Fu et al., (2018) that differentiated the outcome of the study. What this minor contradiction in the research outcomes does suggest, is that the type of knowledge is an important consideration which appears to be as strongly influenced by the parent as by the subsidiary. Tentative support for this interpretation might be found in the work of Peng et al., (2017) established that the tenants of successful reverse knowledge transfer between Chinese parent and a US subsidiary were directly based on a combination of strategic asset seeking motivations, and the relative age of the subsidiary. In the study of Peng et al., (2017) the Chinese parent had been able to establish a subsidiary in the US, as opposed to acquiring a subsidiary, and similar to the later findings of Su et al., (2020) there is a subtle difference between establishing a subsidiary overseas and acquiring subsidiary overseas mediated by the existence of political and cultural oversight. Peng et al., (2017) found much greater willingness to share knowledge when the subsidiary had been established rather than acquired, which would be a reasonable interpretation and may explain the findings of Fu et al., (2018) more readily.

What the findings of Peng et al., (2017) also imply, is that relative ages of firms in terms of the parent subsidiary relationship probably an influencing factor which could well be interlaced with the existence of social equity and trust. In other words, where the firms concerned are all relatively young, there is probably a greater willingness to share greater amount of knowledge on a bilateral basis, because it is in the interest of all parties. Whether firms are likely to be of a similar age is also likely to be a feature of whether the subsidiaries have been acquired or established through differing Foreign Direct Investment (FDI) mechanisms. Where subsidiary firms have been established, there is much more likely to be a strong relationship of trust and social equity leading to a broader range of types of knowledge being transferred and effectively utilised in order to secure competitive advantage. On the basis of this literature, the fifth hypothesis is articulated on the basis of the prior existence of a strong relationship of trust and cultural similarity between the subsidiary and the parent, and not only is knowledge transferred promptly, it is then promptly acted upon by the parent in order to secure competitive advantage and generate organisational value. This variable, speed of knowledge exploitation, is expressed as follows:

H5 *the relationship between **the types** of knowledge transferred and the **speed** of utilisation of knowledge by the parent firm is mediated by the existence of **willingness to share knowledge** by the subsidiary firm.*

4.4.5 Outcome: Organisational Value

On the basis of the preceding discussions in this chapter it is not a surprise to ascertain that when there are shared cultural values of shared cultural context, then knowledge transfer, whether forward or reverse, is found to be markedly more effective. Perhaps ironically, a greater number of studies have been able to identify the impact of the absence of shared cultural values leading to unintentional misunderstandings or even wilful refusal to share knowledge (Hofstede, 2015), and this is one of the few circumstances where measuring the absence of something is reasonably straightforward and impactful. These findings also consistent with research in global marketing theory which find that ‘glocalisation’ - a term coined to describe the practice of being a global firm but valuing local knowledge (Kraidy, 2003) reveals that such firms were able to harness this principle significantly outstripped their competitors, seemingly largely irrespective of industry sector or segment.

One of the key features of this principle is that the parent trusts the subsidiary to adapt processes or product to meet local need and thus gain a foothold and presence in a marketplace. The theory only seems to have been tested extensively in relation to MNEs that have their parent in a developed economy, but it would seem reasonable that this principle would apply where the parent is in a developing economy provided that the parent is willing and able to trust the subsidiary, and/or adapt their own processes to take account of the knowledge that the subsidiary has shared. Key to the process, however, is maintaining consistency overall approach so that intangible aspects such as branding or reputation or not diminished.

Trust within the context of cultural similarity or dissimilarity has a distinct element in that it is quite likely that from a cultural perspective localised strategies or tactics might directly contradict cultural norms (Miesing et al., 2007). An example in relation to the GCC is the fact that positive discrimination in favour of nationals in the GCC is actively encouraged and even required in some circumstances (the reasons are historic due to a disproportionate number of expatriates in the region - Budhwar and Mellahi (2007)). However, such positive discrimination is directly contradictory against many aspects of employment legislation in developed economies. In these circumstances the GCC based parent would need to make hard choices

between accepting the laws of the overseas market it wishes to enter, or not entering the market at all. Other examples around the way in which business negotiations are conducted unlikely to lead to the potential challenge and ‘culture clash’ which is another reason as to the importance of key figures in the subsidiary being able to ‘translate’ social and cultural norms and how these contextualise knowledge which can be used as a source of value. Despite the elaboration of knowledge advice and guidance more generally relating to intercultural communications evidence continues to suggest that this is problematic, which is why giving careful consideration to the mechanisms of knowledge transfer is so important.

Throughout the discussions in this study, it has been the position of this research that there is something unique about the mechanism of knowledge transfer when the parent is in the GCC, and the subsidiary is in a developed economy. Existing recent studies such as Peng et al., (2017), Fu et al., (2018) Nair et al., (2018), Wang et al., (2019) and Su et al., (2020) confirm that there is something unique about the nature of RKT when the parent is in a developing economy such as China or India, and the subsidiary is in a developed economy such as the UK or the US. The evidence however remains mixed, because some studies such as Wang et al., (2019) and Su et al., (2020) show that parents in developing economies do not place particular value on knowledge acquired from their subsidiaries which implies that international expansion their part has a differing strategic underpinning. It is not the place of this study speculate as to what this might be, and nor did either Wang et al., (2019) and Su et al., (2020) consider what this seeming differing motivation might be, but in these two particular studies at least it does demonstrate a lack of perceived value on the part of the parent which is in fact more consistent with the way in which parents in developed economies behave towards their overseas subsidiaries in terms of paternalistic benevolence.

In contrast, Peng et al., (2017), Fu et al., (2018) and Nair et al., (2018) demonstrate that in fact, parents in developing economies do place considerable value on the perceived specific knowledge which they believe their subsidiaries may hold. Differing factors have been shown to influence the perceptions of the parents with regard to perceived value of knowledge, including age and relationship of the subsidiary to the parent (acquired or established), nature of the relationship (Fu et al., 2018), having very close similarity to the study of Peng et al., (2017) in terms of outcome, although conducted in a different context setting. Further the extended work of Nair et al., (2015; 2016; 2018) with the 2018 study in particular demonstrating a positive relationship of collaboration between the parent and the subsidiary in the active pursuit of transfer of knowledge on a bilateral basis. Lyu et al., (2020) also

demonstrated the critical role of bilateral knowledge transfer stemming from a pre-existing relationship of trust and implying the existence of social equity but focusing more on the effects of strategic consciousness. This latter finding, might support the interpretation of the negative outcomes found in the work of Wang et al., (2019) and Su et al., (2020), or in other words, when the parent fails to share strategic insight, thus discouraging bilateral knowledge flows.

Another perspective which might explain the extent to which the parent values the knowledge acquired from the subsidiary can be found in the work of Ai and Tan (2020) who specifically set out to explore the role and importance of pre-and post-acquisition knowledge transfer. This is not in the sense of conducting due diligence audit of a firm about to be required to become a subsidiary, but was instead concerned with level of knowledge transfer, and perceived value of knowledge. Ai and Tan (2020) determined that there is a difference between a parent firm setting out to acquire another firm for the express purpose of acquiring their knowledge in the sense of technical knowledge or market knowledge, as compared to a parent firm setting out to acquire a subsidiary because it would be believe that this would serve as a springboard into other forms of knowledge. For example, maintaining an opportunity for market penetration, or a belief that with the combined knowledge of the parent and the subsidiary then there would be the potential to develop unique knowledge which would have very considerable value potentially leading to competitive advantage on the global market.

The findings of Ai and Tan (2020) would be consistent with the work of Peng et al., (2017) in terms of understanding factors which are perceived as influencing the decision to engage in establishing a relationship with and thus acquiring knowledge from the subsidiary, and the extent to which the parent perceived there is value associated with the knowledge. In plain terms, to what extent does the parent firm go out of their way to acquire knowledge and act upon the knowledge because they perceive that the knowledge has value. As the varying studies into factors which impact on the efficacy of knowledge transfer, a great deal depends on what the parent firm seems to be strategically valuable. Furthermore, where the parent firm does not share their strategy with the subsidiary, this is shown to have an adverse impact. The converse is also true, in demonstrated in the work of Nair et al., (2018), that when the parent sets out to collaboratively share their own knowledge, the generate much greater value in return. These findings suggest that the strategy of the parent firm in terms of acquiring or generating knowledge by means of a subsidiary have a significant impact on the efficacy of knowledge transfer and this is reflected in the sixth and final hypothesis offered in this research.

The final hypothesis therefore contends that the greater the level of value which the parent company attaches to the knowledge provided by the subsidiary, the greater the competitive advantage that can be secured. This relative competitive advantage stems from the fact that because trust exists between the subsidiary and parent as a feature of unique cultural factors relating to the nature of the organisation. And, because the subsidiary shares knowledge promptly and in full, and that this knowledge is then promptly acted upon by the parent firm, then greater competitive advantage can be obtained as a direct consequence of the perceived value of the knowledge. Another way to express this situation would be to say that because the GCC headquartered parent firm actively considers there to be value in knowledge obtained from the subsidiary, the parent company acts promptly on the basis of this knowledge to secure competitive advantage. This is as compared to the converse, where the developed headquartered parent considers the value of knowledge from subsidiaries to be less important, and therefore does little with the knowledge losing out on potential for competitive advantage. This is expressed in the six hypotheses as follows:

H6 *the relationship between the **value** placed on knowledge by the parent firm, and subsequent evidence of **competitive advantage** is mediated by the **types of knowledge** (i.e. explicit and tacit) which are transferred.*

4.5 Conceptual Framework and Discussion

Bringing all of these components together in a single conceptual framework illustrates the antecedent factors of power and culture, the mediating factors of trust and motivation, and the outcomes in the form of the speed of knowledge transfer, the mechanisms for so doing, and the action which the parent company takes and which should, in principle lead to form of non-imitable and hopefully sustainable competitive advantage. As the discussions in this chapter have illustrated, these various factors are interlaced, although they have been treated independently for the purposes of detailed analysis, it is shown that trust is a consistent factor in terms of willingness to engage in the process of knowledge transfer. Furthermore, trust is reciprocal in as far as the subsidiary will most probably not share information with the parent does not trust, but equally the parent benefits if they are willing to trust the subsidiary to do what is right the local market. In tangentially related fields of research this might be considered as a form of psychological contract in as far as it is an unspoken agreement between the relative parties that mutual benefit is obtained if there was full commitment to the relationship. Such

full commitment can only be enacted via trust, which is why this is one of the most important factors.

Trust also has further dimensions as set out in these discussions, in as far as the parent trusts the information it is given, trust that it is presented in full and in context, and trusts the knowledge enough to act upon this information promptly and effectively. Demonstrable evidence of so doing will, unsurprisingly - and consistent with the idea of social equity - further accelerate the process of knowledge transfer, its depth frequency and quality. Findings in existing theory and empirical research tends suggest that greater value is obtained from such relationships, but also that more value can be secured when knowledge is acted upon promptly, and it is trusted. The key differentiating factor in this particular research study, is the pre-existence of trust by definition because of the nature of the power cultural relationship between the parent and the subsidiary, enacted through familial bonds which have a high degree of trust. As noted in the discussions, there are some potential minor limitations in terms of likelihood of cultural clash, and also possible suitability of familial members to serve in a senior capacity in subsidiary firms, but these appear to be significantly outweighed by the many benefits which potentially accrue. As such, the model presented overleaf is a visual representation of how these factors fit together and are tested in this study.

For the purposes of visually illustrating the nature of the lines of reasoning which underpin the choice of variables, hypotheses and the subsequent conceptual framework, two versions of the model been prepared. *Fig. 4.2* presents the version of the model based around hypotheses, and strives to illustrate the logical flow of the relationship of the hypotheses to one another as part of the overall mortgage seeking to explain the mediating impact of trust, power, social equity and willingness to share knowledge and speed efficacy of RKT from subsidiaries to parents when the parents of GCC headquartered the second version of the model, shown in *Fig. 4.3*, illustrates the typology of variables as to whether they are control (type of knowledge) antecedent (power and culture), dependent (motivation to share knowledge), mediating (trust and social equity) or outcomes (speed of knowledge transfer, and speed of knowledge utilisation). Each of these versions of the models and their respective justification are discussed below in turn.

4.5.1 Discussion of Conceptual Framework: Hypothesis Version

The crux of the position of this study is that GCC headquartered organisations with subsidiaries in developed economies have a differentiated approach or a set of unique characteristics relating to the way in which they approach RKT. Therefore, the foundation variables of this model relate to the nature of organisational culture both at organisational and national level, and also the nature of the resources and respective forms of power which the parent and the subsidiary hold. What is unique about the position of the GCC headquartered parent is that they are actively seeking knowledge from their subsidiaries because they believe that there is value associated with this knowledge. Typically, all of the existing theoretical explanations of RKT regarding knowledge transfer from subsidiaries to parents are based around the belief that the parent has superior knowledge and is exploiting the tangible resources of its subsidiaries more so than its knowledge-based resources (Chen et al., 2012; Nair et al., 2018). The unique dimension of this model is that the underpinning assumption is reversed.

From this foundation, two forms of mediating variable exist, trust, and social equity. As discussed earlier in this chapter, trust is reciprocal between the parent and subsidiary for two reasons. Firstly, the nature and culture the GCC parent, which in turn treats the knowledge it receives from subsidiary is being valuable. This mutual relationship of trust engenders social equity (Vaara et al., 2012), and thus the willingness and speed to transfer knowledge promptly and in full from the subsidiary to the parent. Therefore, trust and social equity can be considered as mediating variables. Moreover, the existence of trust and social equity encourages the subsidiary to share knowledge in full, promptly, and the parent firm trusts that they have been provided with full information and that this information is valuable.

The second form of mediating variable relates to the way in which knowledge is transferred, and this relates the mechanism of knowledge transfer, and also quite logically, the mode and form of knowledge. As discussed very extensively in literature (Dalkir, 2018), knowledge takes different forms, such as codified and tacit, and there is arguably greater value in the tacit knowledge the purposes of competitive advantage. It is contended in this study that because of the aforementioned nature of the relationship embedded in the culture of the organisation which is GCC headquartered, there is a greater willingness to share all forms of knowledge, and, crucially, to contextualise the which gives the knowledge additional value. Specifically, when GCC headquartered parent firms have established their subsidiaries with embedded trusted members, these members have the capacity to serve as a conduit for knowledge transfer able to 'translate' between cultures and retain context. As also discussed extensively literature, the

importance of contextualising knowledge is absolutely critical (Nair et al., 2018). The capacity of the arrangement and mechanisms of such contextualised knowledge transfer are therefore potentially a source of additional value, provided that knowledge can be captured and appropriately disseminated.

These antecedent and mediating variables lay the foundations for the outcome variables which relate to: (i) the speed of knowledge transfer from the subsidiary to the parent, willingly, and in full and frank form, and for there to be confidence that the knowledge has been translated accurately through the conduit of contextual knowledge and has thus retained its value; (ii) organisational mechanisms for maintaining the context and thus value of the knowledge on the basis of organisational culture which is only possible because the subsidiary trusts the parent to treat the knowledge with due accord; and finally (iii) on the basis of all of the preceding factors the corresponding speed of the parent to act upon this knowledge in order to establish competitive advantage. It is also further suggested on the basis of this model, that where there is trust and willingness to share knowledge quickly and effectively, the parent company is thus able to act upon the knowledge faster than its competitors, and secure sustainable competitive advantage. The value rests in the fact that the knowledge transferred from subsidiary is treated as being useful, and thus the parent has arranged resources in order to act promptly upon the knowledge and retain its value.

At this juncture it is therefore helpful to represent the six hypotheses in order, and explicitly articulated the linkages between them, and also to explicitly articulate the nature of the variables as to whether they are antecedents, mediators, or outcomes. The purpose of this exercise is to clarify how these variables, whilst distinct are interrelated, and can be shown to have influence upon one another which in turn directly impacts the nature of RKT within the unique context of this study.

The first hypothesis [*the relationship between organisational **power** and effectiveness of reverse knowledge transfer is mediated by the **culture** of the GCC based parent firm*] is thus concerned with the antecedent variables, and it is argued in this study that there is a unique culture within the GCC based parent firm, which affects the way that it exerts its power over the subsidiary with corresponding subsidiary response in terms of knowledge transfer. As recent studies have shown, in similar cultural contexts, i.e. similar developing economies such as China and India, where the parent firm has a culture which facilitates the delegation of authority (a proxy for power) and has loose socio-political ties (closely aligned with culture)

then there is a much greater likelihood of swift and effective knowledge transfer. The unique position of this research is that there is aspects specific to the culture of the GCC based parent firm not only encourage delegated authority, this takes place using a specific mechanism - linked to familial ties - which further positively impacts the relationship of knowledge transfer.

Building on this platform of delegated power and culture the second hypothesis [*the relationship between the **speed** of knowledge transfer and the **willingness** of the subsidiary to engage in knowledge transfer is mediated by the existence of **trust** between the parent and subsidiary firm*] examines the interrelationship of the tacit factors of willingness and trust to share knowledge on the part of the subsidiary, the greater the level of trust, the higher the willingness and in turn more promptly the knowledge is shared. Trust is unsurprisingly repeatedly shown to be a critical mediating variable, the more a firm or a subsidiary trusts the parent, the more likely they will be to share knowledge quickly and in full. The converse is also shown to be true, in that the more the parent trusts the subsidiary, the more likely they are to share strategy information, and also the more quickly the likely to actively information, and so they can be confidence that there is a relationship of some variety between speed knowledge transfer and the willingness of the subsidiary to engage in knowledge transfer which is mediated by the existence of trust between the parent and the subsidiary.

Looking more closely at what engenders trust between the parent and subsidiary, knowing that without trust, knowledge transfer is highly unlikely, the third hypothesis [*the relationship of **trust** between subsidiary and the parent and the **willingness** of the subsidiary to engage in knowledge transfer is mediated by the existence of **social equity**.*] Looks at the role of social equity. Social equity is distinct from trust, because trust can exist at individualised levels, but also at aggregate levels. So for example, Kong (2018) demonstrating that even if high level of trust exists between individual managers at expatriate and local levels, this is no guarantee that there will be consistency in knowledge transfer, but it does confirm that trust is an important mediating variable. Social equity implies a level of parity and respect, which is an extension of the existence of trust. Another way to consider social equity is to treat it as a recognition by the parent firm that the subsidiary has autonomy and knowledge in its own right, and that this knowledge has value. Research also confirms, that where there is trust between the parent and subsidiary, and the subsidiary is willing to share knowledge, the extent to which their willing to share knowledge and the speed at which they are willing to do so, is mediated by social equity. To provide an example, the subsidiary might well trust the parent enough to share the bare minimum of knowledge, but not enough to in common terms 'go the extra mile' by

translating the context of the knowledge in order that it can be utilised in a cross-cultural setting or to provide competitive advantage to the parent. Therefore, the greater the level of social equity, the more likely there is to be a willingness to share knowledge quickly and in full.

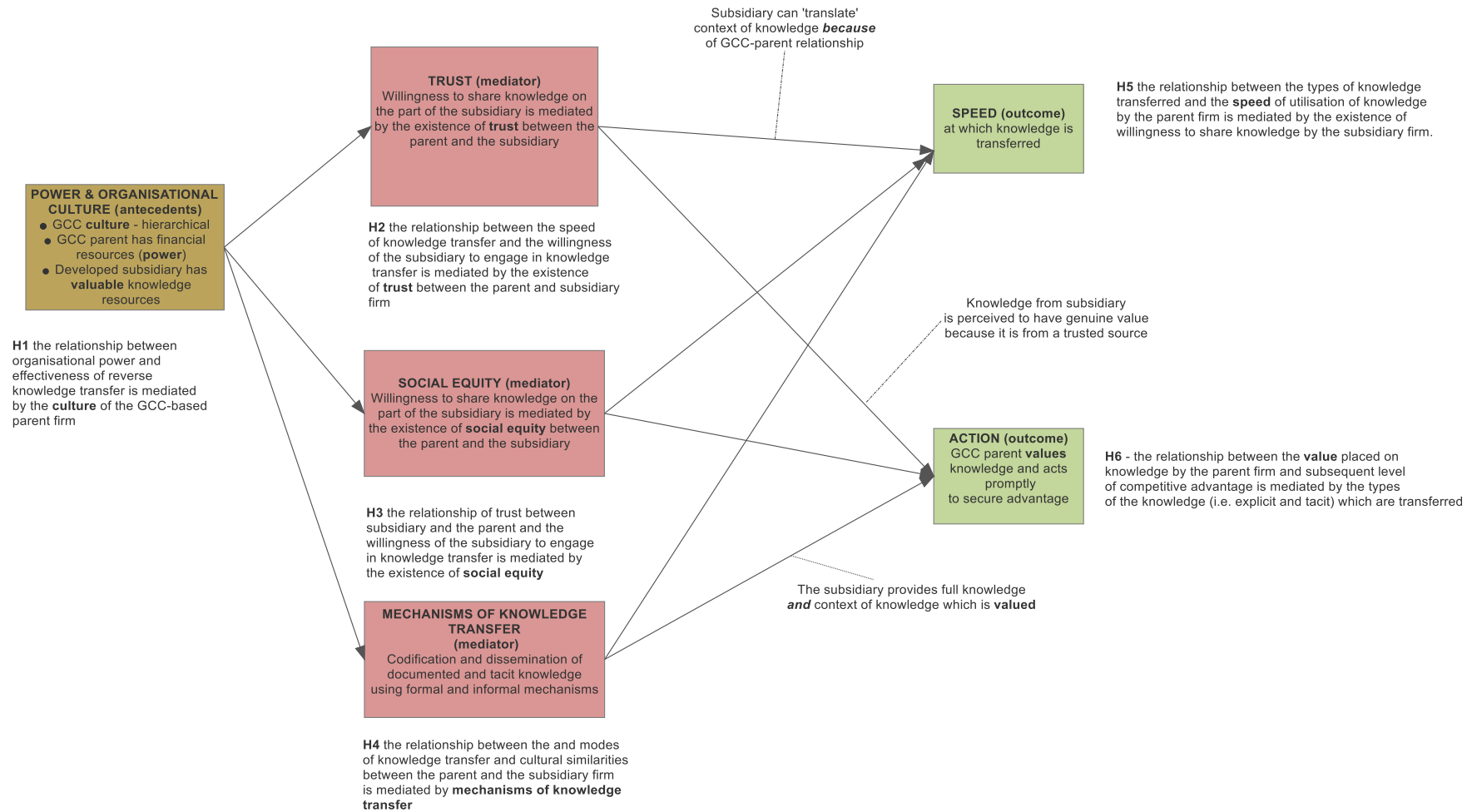
Turning to the question of how the knowledge is transferred, the fourth hypothesis [*the relationship between the **mechanisms of knowledge transfer** and modes of knowledge transfer is mediated by cultural similarities between the parent and the subsidiary firm*] focuses specifically on the modes and mechanisms of knowledge transfer, and the cultural similarities between the parent and the subsidiary firm which are likely to be enhanced with high levels of social equity. Again building on the proposition GCC firms there is likely to be a particular familial connection formal and informal approaches to the mechanisms of knowledge transfer are mediated by the existence of the cultural similarity facilitated through the existence of a cultural conduit. In plain terms, there is someone who can translate the value of the knowledge because they have a full deep understanding of both cultural contexts of the parent and the subsidiary, and have sufficient social equity to harness the knowledge from the subsidiary and have the knowledge valued by the parent.

With regard to the outcomes of RKT, which, ideally should provide a form of sustainable competitive advantage the parent, consideration is given to the types of knowledge which are transferred (formal and informal) and the speed at which knowledge is transferred, which are shown to be impacted by the willingness on the part of the subsidiary to share knowledge. This is conceptualised in the fifth hypothesis [*the relationship between **the types of knowledge transferred** and the **speed of utilisation of knowledge** by the parent firm is mediated by the existence of **willingness to share knowledge** by the subsidiary firm.*] In other words, when the subsidiary is willing to share the knowledge because the mediating variables of trust and social equity exist, as do formal and informal mechanisms of knowledge transfer, then knowledge can be transferred more quickly, and the parent firm is therefore in a position to use the knowledge more quickly to secure competitive advantage.

Finally, it is argued that the perceived value of the knowledge by the parent is an important consideration, and this is framed in the hypothesis [*the relationship between the **value placed on knowledge** by the parent firm, and subsequent evidence of **competitive advantage** is mediated by the **types of knowledge** (i.e. explicit and tacit) which are transferred.*] It is ultimately argued, that the extent to which the parent firm values the knowledge transferred by the subsidiary ultimately leads to the opportunities for competitive advantage. Furthermore,

that it requires both formal and informal knowledge to be transferred in full and in context and at speed (i.e., in a timely manner), in order for the parent to benefit. This ultimately leads to a mutually beneficial relationship of prompt for an effective knowledge transfer from which the parent, and ultimately the subsidiary then benefits. This interrelationship hypothesis is reflected in *fig 4.2* demonstrating the antecedent, mediating, and outcome variables.

FIGURE 4. 2: CONCEPTUAL FRAMEWORK (HYPOTHESIS VERSION). Source: The researcher



4.5.2 Discussion of Conceptual Framework: Variable Version

Fig. 4.3 offers an alternative arrangement of the model focusing on the contribution of each of the variables and illustrating the relationship between the variables in terms of flow. In other words, an explanation of why variables are classified under their various categories of antecedent, mediating, control, dependent and outcome.

First and foremost, is the antecedent variable, the perceived value of knowledge. Unless it is accepted by both the parent and subsidiary that there is some form of inherent value associated with knowledge (in whatever form it might take) then there can be no justification for any investment any form of knowledge transfer or subsequent action. Therefore, value is perceived as being the antecedent variable because it is from a belief in the value of knowledge that all other aspects of the model, and indeed this entire study, stem. That there is value in knowledge is consistent with many fields of literature (e.g. Dalkir, 2018), but there is also acknowledgement in the literature that knowledge takes multiple forms and attract differing interpretations of value depending on perspective. The unique contribution of this research is that it evaluates the assumed value of knowledge from different perspective, and from a different cultural standpoint.

On the basis that it is accepted that there is value in knowledge as the antecedent variable, then the independent variable which is linked to the perceived value of knowledge is organisational power and also culture. Without a perceived power relationship which is accepted because of the culture of the organisation, which is in turn linked to the culture which the parent organisation is located, then it is considered to be less likely that the subsidiary would be willing to freely share their knowledge. The belief in the power of the organisation's hierarchy is therefore an important independent variable consistent with the work of Mudambi and Navarra (2015) and also Najafi-Tavani et al., (2015). Power also features in the nature of the willingness to share knowledge because there is an implicit assumption that the parent has overt power which they might choose to exercise - an obvious example be to restrict the financial activities of the subsidiary in some way. However, the subsidiary has implied power in that they might choose not to share useful information, as recognised in the work of Sohi and Matthews (2019). Therefore, a good power relationship as one where there is social equity, and this is one of the noted mediating variables in this model.

As discussed extensively elsewhere in this chapter, the willingness of the subsidiary to share knowledge in a timely manner, and in full, rests heavily on the existence of trust in the

relationship between parent and subsidiary which is also a feature of culture and power. Moreover, the parent has to trust the information is valuable, and indeed as discussed above, the entire premise of this research is based on the perceived value of knowledge in this particular relationship. Tsang (2016) illustrates that social equity is heavily interlaced with both trust and context, and the unique factor of the subsidiary-parent relationship under scrutiny in this study is that in this scenario of the GCC parent and subsidiary in the developed economy, there is the capacity or capability to translate the contextual knowledge so that it does not lose its value or meaning, but is treated as valuable by the parent. Knowledge, therefore, takes overt and tacit forms.

In turn this links to the type of knowledge which is transferred and the type of knowledge can be treated as a control variable, because it is possible to clearly identify codified knowledge when it is shared in written or visual form, for example in the form of online seminars. According to Bruckmeier (2016), it is also relatively straightforward to identify tacit knowledge when it is shared, because the actions and behaviours of employees elsewhere within the organisation change in some way. The previous theoretical studies have established that where there is a poor relationship between the subsidiary and parent, it could well be the case that intra-subsidary knowledge transfer takes place (Chang and Chuang, 2011; Evans, 2013). That is to say, subsidiaries share information between themselves and withhold this knowledge from the parent, either because they feel that the knowledge will not be valued, or because they feel that the knowledge might be used against them. In this model it is posited that because of the pre-existing relationships of power and culture, the types of knowledge shared particular focus on the valuable tacit knowledge which can be exploited for competitive advantage.

Turning to the outcome variables, the speed at which the subsidiary shares knowledge with parent is important, in order that the knowledge is still relevant valuable, and can be acted upon promptly. Willingness to share such knowledge in full, and in an appropriate timeframe is also likely to stem from the existence of a good relationship between subsidiary and the parent which is dependent upon the existence of organisational culture and also the mechanisms for knowledge sharing (Wei and Miraglia, 2017). It could be perceived to be the case that the subsidiary is more than willing to share knowledge, but the mechanisms for doing so appropriately do not exist. This means that the mechanisms for knowledge transfer are in themselves an important consideration, particularly so to ensure that the context of knowledge is maintained order that the knowledge that has unique value to the parent.

From this, it is argued in this model, that subsequently, the speed at which the parent utilises the knowledge is an important consideration in its perceived value which comes back full-circle to the belief in the value of knowledge existing in the first instance otherwise knowledge transfer would not be a worthwhile exercise. This ties then to the motivation of sharing knowledge which stems from the existence of trust and social equity but also the mechanism through which knowledge is transferred. Moreover, it is only possible to share knowledge quickly and effectively there are cultural similarities.

Finally, it is contended that the outcome of how the knowledge by the parent firm is used is the dependent variable, which is the entire basis for RKT in the first instance. As has been argued consistently throughout the entirety of this thesis, there is a unique relationship between the GCC headquartered parent firm with a subsidiary in a developed economy, because the GCC parent actively wants the knowledge of the subsidiary, perceives the knowledge to be valuable, and intends to act promptly upon the knowledge once it is received. Furthermore, GCC headquartered parent has the potential capacity to be able to translate the value of the subsidiaries' knowledge effectively via some form of conduit in knowledge transfer. Quite probably this takes the form of an individual who is trusted member of the organisational even a family member and is thus conversant in both middle eastern culture and western culture. This has the potential to afford the GCC headquartered parent a unique form of competitive advantage.

FIGURE 4. 3: CONCEPTUAL FRAMEWORK (VARIABLE VERSION). Source: The researcher

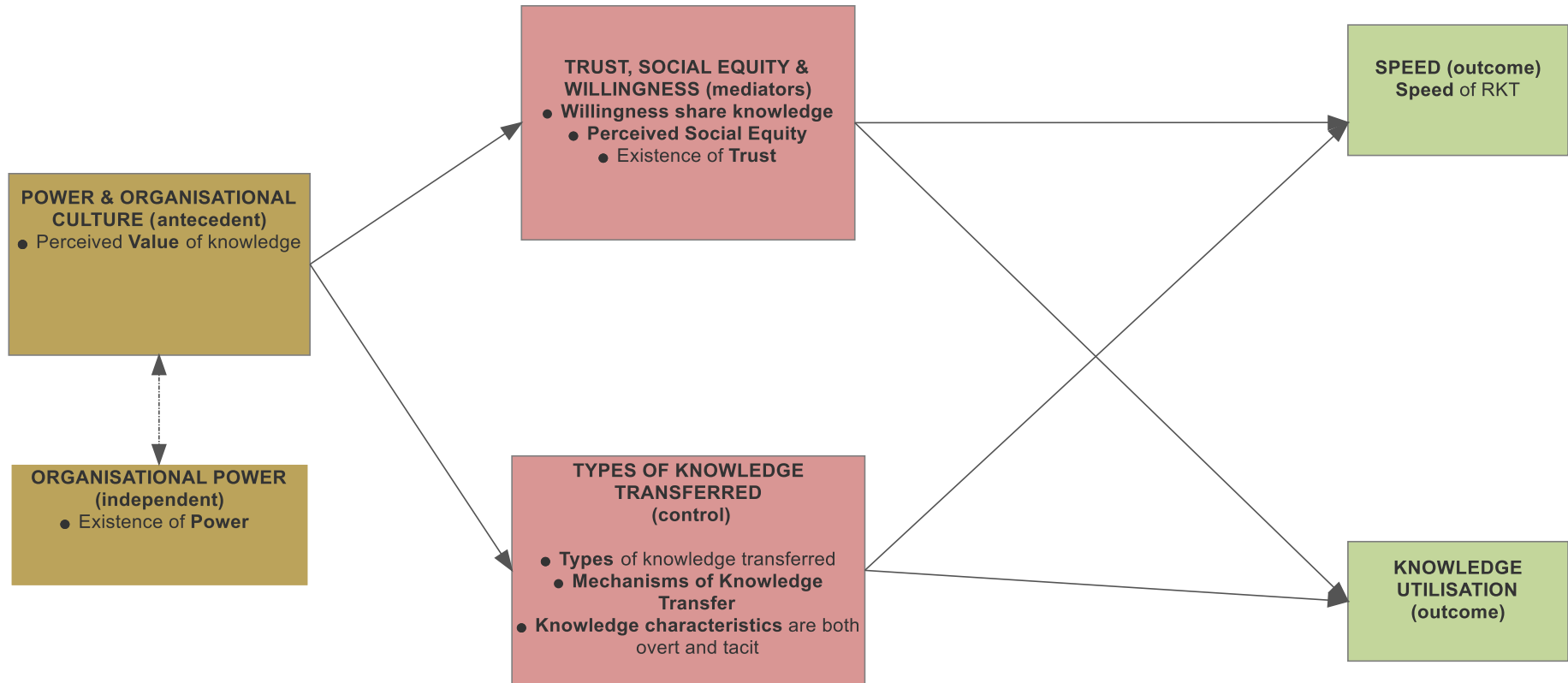


TABLE 4. 1: LINKS BETWEEN RQS AND HYPOTHESES

OBJECTIVES	RESEARCH QUESTIONS	HYPOTHESES
<p>O1 - To critically evaluate the nature of RKT from developed economies back to developing economies, whereby the parent company in a developing economy has superior financial resources but lacks knowledge in relation to developed marketplaces. Specifically, to explore the nature in business services such as finance and banking.</p>	<p><i>Core Question: How do multinational firms headquartered in the GCC extract value and secure sustainable competitive advantage from knowledge captured and returned from their subsidiaries in developed economies?</i></p>	
<p>O2 - To ascertain the impact of mediating variables on the nature of RKT in the form of willingness to share knowledge, trust from subsidiary to parent, and the context of knowledge in order for the knowledge to give value back to the parent company.</p>	<p>RQ1 – What role does social equity; trust and power serve in the willingness and motivation to share knowledge and the speed of knowledge transfer?</p>	<p>H1 <i>the relationship between organisational power and effectiveness of reverse knowledge transfer is mediated by the culture of the GCC based parent firm.</i></p> <p>H2 <i>the relationship between the speed of knowledge transfer and the willingness of the subsidiary to engage in knowledge transfer is</i></p>

		<i>mediated by the existence of trust between the parent and subsidiary firm</i>
<p>O3 - To investigate the mechanisms of knowledge transfer in light of these assumed mediating variables to determine whether particular knowledge transfer mechanisms are more suitable and can be explained or understood through existing theory and concepts, or whether a fresh critical interpretation is required.</p>	<p>RQ2 – What are the most effective mechanisms for capturing and returning knowledge from subsidiaries in developed economies to headquarters in the GCC? And what is the impact of contextual cultural similarity between them?</p>	<p>H3 <i>the relationship of trust between subsidiary and the parent and the willingness of the subsidiary to engage in knowledge transfer is mediated by the existence of social equity.</i></p>
		<p>H4 <i>the relationship between the and modes of knowledge transfer and cultural similarities between the parent and the subsidiary firm is mediated by mechanisms of knowledge transfer</i></p>
		<p>H5 <i>the relationship between the types of knowledge transferred and the speed of utilisation of knowledge by the parent firm is</i></p>

<p>O4 - To determine the distinct characteristics of RKT from developed to developing economies in recognition of the balance of power between a parent and subsidiary and the fact that developing economies are still taking their cue from developed economies in terms of business development, but have superior financial resources for investment and are typically seeking knowledge as a core resource.</p>		<p><i>mediated by the existence of willingness to share knowledge by the subsidiary firm.</i></p>
	<p>RQ3 – What value does the parent place upon the knowledge captured from the subsidiary, and what action does it take based on this perceived value?</p>	<p>H6 <i>the relationship between the value placed on knowledge by the parent firm, and subsequent evidence of competitive advantage is mediated by the types of knowledge (i.e. explicit and tacit) which are transferred.</i></p>

Source: The researcher

4.6 Summary

This chapter has provided a detailed discussion of how this conceptual framework has been developed, and how the theory underpinning concepts of RKT has been woven into the six hypotheses which serve as the antecedent, mediating variables, and propose outcomes. The overarching factor is the unique dimension of the nature of the relationship between the parent and subsidiary manifested in the personalised relationship likely to stem from the GCC parent to the subsidiary through individual bonds of trust and social equity. Stemming from this are a number of positive outflows in terms of speed and willingness of knowledge transfer, mechanisms for so doing, contextualisation and efficacy of action. The remainder of this research study is devoted to describing how data has been collected to test this framework, and evaluate the outcomes leading to the development of recommendations contributions to theory and practice in respect of the efficacy of RKT when the parent is GCC based and its subsidiaries are guided or influenced through strong bonds of trust. Chapter 5 which follows justifies and describes in detail the methodological approach of this research.

CHAPTER 5: RESEARCH METHODOLOGY

5.1 Introduction

This chapter outlines the research methodology and research design for the study. It starts with the philosophical stance and methodological foundations of research design used for the collection of data, along with the procedures adopted for scale development. After reviewing the available choices for research methodology, an appropriate method has been chosen. The research design explained in this chapter covers the unit of analysis, followed by scale development and validation of the method. The instrument development or measurement scale is based on the literature review, while the procedure for data collection is discussed along with the demographics used in the study. The approach of this study is to explore how and why the variables configure together, Reverse Knowledge Transfer (RKT), RKT mechanisms, RKT speed, and trust, willingness and knowledge value to transfer the knowledge.

The purpose of this study has been to identify the mediating roles of willingness to share knowledge, social equity, and trust, during reverse knowledge transfer. Within this study the mechanism of (reverse) knowledge transfer through face-to-face communication and the use of technology has been considered, and also the role that power plays in knowledge sharing, motivation and evidence of knowledge utilisation. This has been assessed by controlling for the types of knowledge shared, and outcomes including the pace or speed of knowledge transfer, action on the basis of knowledge (knowledge exploitation), the similarities between parent and subsidiary companies, and the antecedent of perceived value accruing from knowledge.

Chapter two and Chapter three provided a detailed literature review, on the basis of which a conceptual framework (chapter four) was developed. On the understanding that variables need to be defined and operationalised to ensure construct validity, noting that construct validity is defined “*as the extent to which an operationalisation measures the concept it is supposed to measure*” (e.g., Cook and Campbell, 1979; Bagozzi, Yi and Phillips, 1991).

This chapter outlines the research methodology and research design for the study. It starts with the methodological foundations, philosophical stance and research design used for the collection of data, along with the procedures adopted for scale development. After reviewing the available

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5.2 Philosophical Foundation of the Research and Choice of Research Logic

5.2.1 Philosophical Foundation

The philosophical foundations shed light on the research methodology. The research framework is the core element for the development of methodology related to any field of inquiry. Lester (2005) identified that developing and using a research framework were critical aspects of the research process. The research perspective shows the point of view dependent on the discipline, such as psychology or any other field. It might have an orientation of practice such as a summative or formative evaluation, it might be philosophical in nature, and it may be critical, positivist or interpretive. Scotland (2012) established that knowledge was related to subjectivity, and also identified significant philosophical underpinnings and presented certain underlying ontological and epistemological conventions behind each piece of study.

As highlighted by Taylor et al., (2015), the research philosophy refers to the underlying epistemological premises, methodological approaches, and beliefs and values of a researcher regarding the phenomena being studied. The philosophy also encodes the assumptions of the theory and methods used in the study. When presenting these assumptions, it is necessary that they support the researcher in explaining the reasons for the research methodology that has been chosen. There are three main subdivisions of philosophy relevant when considering research philosophy: epistemology, ontology and axiology (Flick, 2015).

The first, epistemology, is linked with the nature and types of knowledge (Cohen et al., 2007). Therefore, it is right to say that epistemology is the nature of knowledge. It is about identifying the kind of relationship between those seeking knowledge and what might be possibly known (Guba and Lincoln, 1994). Epistemology is also concerned with the forms of knowledge that a

research project will investigate and produce, linked to the main research outcome and the project's contribution to knowledge in the elected field of study. In the case of the present study, this means knowledge concerning RKT. There are several assumptions regarding knowledge claims, but positivism and interpretivism are the two most common perspectives in social sciences research (Corbetta, 2003; Hussey and Hussey, 1997, cited in Malhotra and Birks, 2003, p. 139; Crotty, 1998;).

Malhotra and Birks (2003) identified that positivism is a philosophy of language and logic consistent with an empiricist philosophy of science. It can be said that positivism is dependent on the school of thought that researches human behaviour and social phenomena. When using a positivist approach, the researcher therefore has to select a framework similar to that which would be employed in the natural sciences when explaining a particular phenomenon (Malhotra and Birks, 2003; Payne and Payne, 2006;). Typically, the outcome of using positivism is that the findings may redefine or enrich theories.

Ontology, being the second component, can be understood as the nature of being, and has also been described as a way to reach the goal of finding something (Guba and Lincoln, 1994). Ontology concerns the objective and subjective nature of the reality of the phenomena under study (Smith, 2015). In the case of the present research, the phenomena being studied include the forms of objective and subjective knowledge involved in RKT.

The last component is axiology, which relates to the philosophical study of value (Hart, 1971). It can also be said that it is a collective term for ethics and aesthetics. Ethics identifies concepts such as right and good among individuals within a social construct while aesthetics relates to concepts like beauty and harmony. Axiology can be regarded as an attempt to set the principles for value with mathematical rigour. It concerns the value-reference of the researcher, including the ethical imperative to be objective and not to succumb to overt or hidden value bias.

5.2.2 Research Logic

Researchers test and build theories using deductive and inductive approaches. According to Malhotra and Birks (2003), positivists try to establish the legitimacy of their thoughts by using a deductive approach, while interpretivists do so use inductive methods. When using a deductive

approach, after identifying the area of enquiry, a well-developed theory is concentrated through empirical evidence. In contrast, under an inductive approach, only the area of study is taken into account, without any detailed framework, and theory is built on the basis of observations (Malhotra and Birks, 2003; Neuman, 2003).

Creswell (2009) defined positivism as a methodology used to explain relationships. When following positivism, a deductive approach is typically used, leading to techniques through which predictions and generalisations are based on predominately quantitative data (Scotland, 2012). However, it should not be ignored that this approach has its own limitations, because it was designed for study of the natural world, and so utilising it for social sciences may not be as effective. However, despite its limitations, the deductive approach is employed in this study, through which the researcher seeks to incrementally develop existing theory by testing it in a new context (Malhotra and Birks, 2003). Further, positivism relies on empirical data that can be observed and measured so that various components can be compared for relative frequency (Malhotra and Birks, 2003). Thus, following the approach that the researcher and the area under research are two different and independent entities, where reality lies in objects, it is therefore for the researcher to derive meaning from it.

To conclude, considering the perspective of positivism, this research is designed to verify the framework by testing hypotheses to understand the relationships between the variables chosen in the study. These variables are: (1) the role of willingness to share knowledge; (2) social equity; (3) trust, (4) the mechanism of knowledge transfer, (5) the role that power plays in knowledge sharing and motivation; and (6) evidence of knowledge utilisation. These variables are evaluated in conjunction with the following control variables (a) the types of knowledge shared, and outcome variables including (i) the pace or speed of knowledge transfer, (ii) action on the basis of this knowledge, (iii) similarities between the parent and subsidiary firms, and finally, the antecedent of perceived value of the knowledge being transferred.

5.3 Research methodology and method selection

Research in business studies is broadly understood as a form of social science research. Because it deals with institutions, groups and individuals in formal and informal situations, it is often considered best to use quantitative (questionnaires) and qualitative (face-to-face interviews) methods to gather the information that is needed to answer the research questions of any particular study (Bryman and Bell, 2015). The formulation of research methodology is important, and while developing a research methodology, the researcher has to consider the fact that ‘research methodology’ is different to ‘research methods’. Research methodology refers to a systematic way of resolving the researchable issue, while the research method is the particular technique used to conduct the research (Crotty, 1998). Thus, outlining the research methodology is critical: it is imperative for the researcher in order to determine the outline of how the research has to be conducted.

Crotty (1998) suggested two issues that the researcher should address when developing the methodology. Firstly, which methodology should be employed to answer the research questions, and secondly, what are the justifications for this choice. The terms “research methodology” and “research methods” are used interchangeably by most researchers, however, as noted above, research methods refer to the techniques used for gathering and analysing the data which are relevant to answer the research questions (Crotty, 1998). The research methodology is employed to “*indicate a set of conceptual and philosophical assumptions that justify the use of particular methods*” (Payne and Payne, 2006, p. 148). The following section describes in detail the research method adopted in this study, and its application.

5.4 Quantitative method research

As set out in the discussion above in *section 5.2.1*, when the philosophy of social research has been analysed, it can be concluded that the approach followed by researchers for constructing theories depends on their perspective about the social world. Research designs are of two types: qualitative and quantitative (Flick, 2014; Riedl, Davis and Hevner, 2014). Qualitative design researches the responses of individual agents via interviews and questionnaires (Kvale, 1996; Patton, 2002; Silverman, 2000) and quantitative methods present empirical information that is based on numerated facts and evidence (Bryman, 2001; Kumar and Phrommathe, 2005; Riff, Lacy and Fico, 2014; Yin, 2014). As Bryman (2001), and Flick (2014) confirm, before conducting research, it is

important to choose which method will be adopted: quantitative, qualitative or mixed methods. The choice of method is dependent on the process through which data will be collected and analysed. It is also important to understand the implications of each method and their respective merits and demerits which are considered below.

Qualitative research is multi-method in its focus, and it involves an interpretive and naturalistic approach to its subject matter. Qualitative studies are conducted in natural settings in order to make sense of the situation or to interpret the phenomenon under discussion. The core of any qualitative study is to understand the social reality of individuals, groups, or cultures represented by the participants. Qualitative research methods usually involve interviews, observations, focus groups or group interviews, and the analysis of data gathered in this way is usually carried out through creative and interpretive means (Queirós, Faria and Almeida, 2017). However, qualitative studies are costly and require significant amounts of time, despite the fact that they do not require large samples. Moreover, as qualitative studies are based on observations, it is near-impossible to repeat the situations, events and interactions (Flick, 2014). Another challenge related to qualitative methods is the analysis of the data that has been gathered, as it requires expert knowledge in the area so that the analyst may easily understand the phenomenon (Bryman, 2001).

On the other hand, the aim of quantitative research is to establish generalisable rules of behaviour and of the phenomenon across different contexts (Queirós, Faria and Almeida, 2017). Most quantitative studies apply the testing of theories through hypothesis testing for acceptance in a particular situation, and the acceptance or rejection of theories is based on statistical analysis. Statistical tests are used to describe the raw data in easily understandable ways and mainly help in testing the theory (Carr, 1994). These tests can be used in descriptive as well as inferential ways. In the current research, the moderating effect has to be analysed, which will be helpful in expanding the current theory. Data analysis using software helps to prove or disapprove the relationships which have to be analysed. Therefore, results drawn from quantitative studies are generalisable, since reliability and validity are tested empirically (Antonius, 2003). What follows in Section 5.5 is an explanation of the research design adopted in this study.

5.5 Research Design

In the previous sections, the philosophy and methodological issues of this research were discussed. This section presents the guidelines for collection of the data, along with the research settings and the unit of analysis of the study.

5.5.1 Research setting

For the purpose of generalisability of the results, the context of the research is very important. This means the conditions and boundaries set for the encompassing theories (Whetten, 1989). As discussed in the literature review, most research on RKT has been conducted in developed countries like European states, while studies on non-European countries are limited. Therefore, the generalisation of theories in GCC countries has been limited. Furthermore, evidence of RKT from developed to developing countries has not gained much attention in the literature. Within the work on this subject that does exist, such as Politis (2001), Lin (2007) and Eriksson et al., (2015), all of whom have examined the measurement of knowledge flows in different contexts. Therefore, using the same methodology, the current data collection has been conducted through structured questionnaires.

In emerging and growing economies like the GCC countries, businesses are increasingly understanding the importance of knowledge flow. However, the implementation of Western-developed concepts in a non-Western context may raise issues of the applicability of the theory. The major issue is that the theoretical models commonly used for prediction assume the context of Western countries, but their implementation in non-Western contexts may not fulfil those assumptions. The characteristics of non-Western countries may differ, and therefore implementing the same theory in a different domain may give controversial results. Thus, this research is being conducted using a positivist approach to identify the implementation of theories in a different context, by identifying the mediating role of the previously mentioned variables relating to RKT.

5.5.2 Choice of research location

The choice of research location has been selected on the basis of the issue under consideration. The data in this study will be collected from the headquarters of organisations within the GCC by (e)- mailing surveys. The target organisations were identified and triangulated through the Bloomberg database, company reports and various business and investment websites. The

questionnaire was addressed to managers of organisations that have subsidiaries in developed countries, but whose headquarters are in GCC countries. The support of the researcher's sponsor embassies and cultural bureau in the GCC should ensure access to the organisations.

A participant information sheet and consent form (See appendix 2 and 3) will be sent in advance to managers working in the headquarters of organisations in GCC countries.

To ensure a high response rate, special consideration has been given to the time duration of the questionnaire: it is assumed that the questionnaire will take approximately 15-20 minutes to complete. The consent form states that the data provided by the respondents will be kept strictly confidential and their names will not be shown.

5.5.3 Unit of analysis

The unit of analysis is a major object to be considered when conducting a study (Baker, 1994; Corbetta, 2003). The research objectives and research questions identify the unit of analysis (Baker, 1994), noting that the unit of analysis may be an individual organisation.

In order to develop the relationship among the constructs from this managerial perspective, the instrument has been developed from the previous literature, the detail of which is discussed in depth in section 5.6 Moreover, previous studies including the research of Politis (2001), Lin (2007) and Eriksson et al. (2015) have examined the measurement of knowledge flows and have chosen managers as the sampling units.

5.5.4 Target population and sampling technique

Malhotra and Birks (2003) assert that it is important for a researcher to be specific in targeting a population. The target population is defined as a group of a certain population that shares similar characteristics and that has to be linked with the issue under discussion. Defining the target population of a study is very important because it has to be directly linked with the phenomenon under discussion. The terms "target population" and "population" are usually used interchangeably; however, attaching the word "target" stresses that sometimes research samples can be wide of the mark. At times samples might be unrepresentative of the entire population for which generalisability has to be present. Defining a target population means identifying who should be part of the study and who should be avoided. In this study, multinationals that have

subsidiaries in developed countries and headquarter in GCC countries constitute the sampling units, and their managers are the elements. The total population identified in this research was the headquarters of 236 firms: of these, 60 were in the KSA, 55 in the UAE, 45 in Kuwait, 50 in Qatar, 24 in Bahrain and two in Oman. Census sampling was used.

The next step is to explain the sampling frame. It is important to define the sampling frame through the use of different sources, for example mailing lists of managers working in the headquarters of GCC-based companies with subsidiaries in developed countries. These lists provide the sampling frame for the target population. For security reasons, it is not easy to get a mailing list of all the managers because some organisations keep these details confidential; the researcher's sponsoring embassy will be contacted for this purpose. However, because of this, there is a chance that probability sampling may not be possible, for which partial Least Square Structural Equation Modelling (PLS-SEM) will be used.

A very important aspect of ensuring the generalisability of the results is using an appropriate sampling technique (Malhotra and Birks, 2003). If an appropriate sampling technique is not used, the results may not be truly representative of the population, and thus the generalisability of the results may become an issue. Thus, it would be right to say that sampling technique is a very significant part of research. An appropriate sampling technique helps considerably in research, and choosing it is important as it determines the relevancy of the research findings. If any misappropriation occurs, this will be reflected in the results. As several techniques are available, choosing the right approach is compulsory for gathering the sample, and the right approach will depend on the situation.

The sampling technique has two main categories - a) probability sampling and b) non-probability sampling. Probability sampling is preferable, as it is one of the requirements of parametric tests (Flick, 2014). It is considered to be better for the generalisation of results over a larger population. Researchers who use it are more confident in their findings as there is no chance of respondent bias. In probability sampling, each member or element of a population has a known equal chance of being chosen for inclusion in the research, unlike in non-probability sampling, where the chances of being chosen are not equal.

There are four main types of probability sampling: simple random sampling, systematic sampling, stratified sampling and cluster sampling. In simple random sampling, each and every member of the population and every individual element has an equal chance of being chosen. When using this method, the entire population has to be available to be chosen. In most cases, random number generation or other techniques that ensure all units of the population have an equal chance of being chosen are used (Flick, 2014). The second type, systematic sampling, is quite similar to simple random sampling but more straightforward. Each and every unit is listed with a number, but instead of randomly generating numbers, regular intervals are used to choose the sample (Etikan et al.,2016). For example, if the entire population is 1000 units and a sample of 100 is to be chosen, then every tenth unit will be selected as a sample.

The third type, stratified sampling, is used when the population has mixed characteristics and the researcher wants to make sure that every characteristic is proportionally represented (Flick, 2014). In this technique, the entire population is divided into sub-groups. The final technique is cluster sampling, in which the population is divided into subgroups, in which all the groups have similar characteristics. This technique is appropriate for large and dispersed populations (Sharma, 2017). Probability sampling has certain limitations, as a result of which non-probability sampling is sometimes used.

Non-probability sampling selects samples based on non-random criteria. Therefore, all the members of a population do not have an equal chance of being chosen as a representative sample. Non-probability sampling also has four techniques: convenience sampling, voluntary response sampling, judgemental (purposive) sampling and snowball sampling. Convenience sampling, as its name suggests, is a convenient technique for the researcher. It is inexpensive as well as highly accessible for the researcher (Sharma, 2017). However, it becomes difficult to be sure whether or not the sample is truly representative when it comes to the generalisability of the results. Like convenience sampling, the second technique, that of voluntary response sampling, is based on ease of access. The only difference is that instead of the researcher choosing the respondent, the respondent volunteers to become a respondent. In the third type, the researcher uses judgemental or purposive sampling for the purpose of selecting the sample. It is used mostly in qualitative research. The fourth and last type of non-probability sampling is snowball sampling, in which participants become involved with the help of other samples who are already involved.

By discussing probability and non-probability sampling techniques in detail, it becomes easy to decide which is the most appropriate sampling for the issue under consideration. In most cases it is considered that probability sampling is the most appropriate technique. However, when this is not possible, non-probability sampling is considered to be more appropriate, and at the same time it is recommended not to use any parametric tests. By using a non-parametric test and following a non-probability sampling technique, the generalisability of the results is compromised (Baker, 2002; Denscombe, 2002). Whenever a sampling frame is difficult to acquire, it is appropriate to use non-probability sampling. As it was difficult to use probability sampling because of the lack of a sampling frame, judgemental sampling has been used in this study. In this method, respondents were chosen on the perception that they represent the entire population under consideration.

Judgemental sampling is suitable when the number of individuals having a trait are limited. It is relatively time-effective compared with other sampling techniques. It is considered appropriate when the information has to be collected from a selected group of people having a particular trait or characteristic (Etikan and Bala, 2017). This becomes viable only if the researcher knows a reliable professional whom he or she considers as capable of becoming a representative sample. As mentioned earlier, the managers for this study will be chosen using the judgemental sampling technique, because they are in a setting in which they are gaining knowledge from subsidiaries in developed countries.

As judgemental sampling is a form of non-probability sampling in which the researcher selects the sample the chances of bias are therefore high (Sharma, 2017). However, its core purpose is to maximise the chances of relevancy of the respondent, because it allows the researcher to directly approach the target population of interest. Since bias may occur, this issue must be addressed when judgemental sampling is being used. When participants respond to a questionnaire, their responses may be manipulated because of content-irrelevant factors, a situation known as response bias (Baumgartner and Steenkamp, 2001). Response bias is in essence, non-content based. The best example is when respondents tend to answer in a particular way to support the reputation of their organisation (Tellis and Chandrasekaran, 2010). Employees who are satisfied with the organisation will respond in a positive way, while those who are dissatisfied will respond negatively.

Researchers have termed this kind of response as social desirability bias (Tellis and Chandrasekaran, 2010). It refers to the mindset of people who are influenced by social acceptability rather than giving their true opinion; they prefer to give answers that improve their image in the eyes of other people, rather than revealing the truth, and choose a response which may increase their favourability. Since the current research will examine the hypotheses with the help of self-administered questionnaires, the issue of social desirability may influence the acceptance or rejection of the hypotheses. For example, in order to improve their image, the respondent may answer dishonestly, which may alter the results of the study. The issue of social desirability may therefore disguise the actual relationships during the analysis (Ganster, Hennessey and Luthans, 1983). To avoid this issue, managers rather than directors and CEOs are contacted, because more senior managers may be susceptible to social desirability bias, which means the results may not be based on facts.

Having considered all the advantages and limitations of the judgemental sampling technique, it is considered appropriate for this study. All the necessary precautions will be taken, including steps to avoid bias from the researcher when choosing the sample.

5.6 Research Survey/Questionnaire

There are numerous ways of conducting a survey, such as observation, semi-structured interviews and questionnaire surveys (Bartholomew et al., 2007). In the study, a mailing survey has been used to gather data from respondents representing firms with headquarters in GCC countries. A questionnaire survey was carefully designed, drawing on relevant prior literature. It contained 15 demographic questions for the purposes of classification to ensure broad population distribution, followed by a number of questions relating to statements developed from existing research in the field of knowledge transfer. The statements are ranked on a Likert-style scale of 1 (“strongly disagree”) to 7 (“strongly agree”). These statements are designed to provide an understanding of how managers feel about sharing knowledge.

A briefing summary will be provided to all the respondents before they receive the research instrument, informing them about the core aims of the research. The overall organisation of the

questionnaire is intended to elicit systematic responses to the main research questions concerning RKT.

5.6.1 Scale development and validation

Development of the scale, while resolving the issues of validity and reliability, is critical (Flick, 2014). The scale is linked to the framework of the study which is developed for empirical testing. A measurement scale is a collection of items which are combined to form a composite that is used to measure a particular variable, which cannot be readily observed by direct means. If a scale is developed systematically, fulfilling all the requirements of scale development, it will help in the generalisability of the findings of the study. However, if the measurement scale is not developed properly, it may lead to inappropriate findings not based in reality.

5.6.2 Generation of measurement items

After understanding the issues relevant to scale development, the researcher has developed the scale for the current study following the guidelines of Dilamn (1991). It is important to capture the domain of the construct when developing the items for the variables. The literature is usually reviewed when developing the measurement items. As this is a purely quantitative study, the items for the constructs have been generated on the basis of a critical review of the literature. These are set out as follows:

- The items for “The mechanisms of forward and reverse knowledge transfer are heavily influenced by pre-existing social relationships and trust” were taken from the study by Adenfelt and Lagerström (2008) on the social relationships between the subsidiary and parent company.
- The items for “Benefits of subsidiary knowledge” were drawn from the research by Ambos, Ambos and Schlegelmilch (2006). This is the main variable, i.e. how to benefit from the information and knowledge gained from the experiences and information shared by subsidiaries. Knowledge transfer is not possible without developing a proper mechanism, and knowledge transfer from subsidiaries in developed countries will be impossible without it.
- The items for “Importance of creating micro-level knowledge transfer mechanisms” were developed from the research of Andersson, Dasí, Mudambi and Pedersen (2016).

- The items for the variable “Organisational structure is a strong predictor of willingness and capacity of knowledge sharing (forward and reverse)” were derived from the research conducted by Birkinshaw, Nobel and Ridderstråle (2002). This variable discusses the structure of the organisation which helps or demotivates knowledge sharing.
- The next variable, “Means of capturing and defining culture and values in organisations”, was derived from the study by Cameron and Quinn (2011).
- The items for “Social capital are critical in influencing the pace and flow of knowledge transfer” were developed from the research by Chen and Lovvorn (2011), who studied the role of social capital in understanding the speed of knowledge transfer within multinational enterprises.
- The items for the variable “Many strategies correspond to different kinds of information technology in the context of knowledge management” were chosen from the study by Edenius and Borgerson (2003).
- The items for the variable “Co-operation and mutual trust a strong indicator of future willingness to share knowledge” were generated from the research conducted by Frost and Zhou (2005).
- The items for the variable “Corporate control of knowledge flows (forward and reverse) is lateral and culture-context specific” were developed from the research of Gupta and Govindarajan (1991) into the topic of knowledge flows and the structure of control within multinational corporations.
- Another study by Gupta and Govindarajan (1994), entitled “Organizing for knowledge flows within MNCs”, helped in the development of items for the variable “Subsidiaries more likely to develop their own knowledge than absorb head office directives”.
- The items for the variable “Existing inter-organisational knowledge transfer mechanisms can have conflicting impacts depending on *type * of knowledge” were developed from the research conducted by Hansen (2002).
- The items for the variable “Individual subsidiaries develop at different rates – more likely to share with parent than other subsidiaries” were constructed from the research of Harzing and Noorderhaven (2006).

- The items for the variable “Individuals at different levels within organisations use their knowledge (positively and by omission) as a source of power in negotiations and information transfer” were derived from Ipe (2003).
- The study by Khan, Shenkar and Lew (2015) helped in the development of items for the variables “The role of socialisation in knowledge transfer from international joint venture assemblers” and “How to enhance the comprehension and speed of knowledge transfer to local suppliers’ socialisation mechanisms enhance comprehension but not speed”.
- The items for “Social value and equity are critical for knowledge generation and knowledge sharing (inter and intra)” were developed from the work of Lagerström and Andersson (2003).
- The research conducted by Levin, Cross, Abrams and Lesser (2002) helped in the development of items for the variable “Role of relational and social capital (trust) in knowledge sharing”. In this study, it was identified that where employees across the subsidiaries feel that they have mutual social capital or are equally valued within the organisation this directly enhances trust. As trust is proven to be an important component of the willingness to engage in knowledge sharing both forward and reverse, measuring the item of social capital was treated as a proxy for the existence of trust between employees in the subsidiary and the parent.
- The study on overcoming cultural barriers to sharing knowledge by McDermott and O’Dell (2001) helped in the development of items for the variable “Employees adapt their approach to KM and RKT to fit their culture. They do not change their culture to fit new knowledge.”
- The items for the variable “Types of knowledge – tacit and explicit – subsidiaries to Chinese parent” were developed from the study on effective knowledge transfer within transnationals by Miesing, Kriger and Slough (2007).
- The items for “Knowledge flows” were based on the research by Mudambi and Navarra (2004).
- The items for “Subsidiaries able to exploit their knowledge in negotiations with parent” were derived from the study on knowledge flows by Mudambi and Navarra (2015).
- The items for the variable “Role of social exchange in knowledge transfer” were derived from Muthusamy and White’s (2005) study on learning and knowledge transfer.

- The items for the variable “Good social interaction critical for the speed and quality of knowledge flows (multi-directional)” were developed from the research of Noorderhaven and Harzing (2009).
- The items for the variable “Subsidiary knowledge critical mediating factor in scale and quality of innovation and organisational development” were developed from Phene and Almeida’s (2008) study on innovation in multinational subsidiaries because of knowledge transfer.
- The items for the variable “Knowledge characteristics and host country characteristics have significant mediating effects on reverse knowledge transfer” were developed from the work of Yang, Mudambi and Meyer (2008), which studied conventional and reverse knowledge flows in multinational corporations.
- Research on the issues related to power perspective to interunit knowledge transfer conducted by Wong, Ho and Lee (2008) helped in the development of items for the variable “Units of power in transferring knowledge”.

Table 5.1 below shows the individual items along with the source. As mentioned previously, there are 15 questions related to demographics which will be used as control variables.

TABLE 5. 1: SOURCE OF VARIABLES

WILLINGNESS TO SHARE KNOWLEDGE – subsidiary to parent firm	Sources
Subsidiaries enjoy sharing their knowledge with their headquarters	Mudambi and Navarra (2004)
Subsidiaries seek out opportunities to share knowledge with their headquarters	Mudambi and Navarra (2004)
Subsidiaries feel happy sharing their specialist knowledge with their headquarters	Mudambi and Navarra (2004)
Subsidiaries have unique knowledge or expertise to share	Mudambi and Navarra (2004)
Subsidiaries willingly share knowledge with others without being asked	McDermott and O’Dell (2001)

Subsidiaries do not share knowledge because they fear it would erode their strategic independence	Mudambi and Navarra (2004)
SOCIAL EQUITY	
Employees are rewarded for sharing knowledge	Muthusamy and White (2005)
Our organisation benefits from knowledge sharing	Muthusamy and White (2005)
Employees feel closer to our organisation when we share our expertise	Muthusamy and White (2005)
Employees build social equity with their international colleagues by sharing knowledge	Muthusamy and White (2005)
Employees build reciprocal commitment with their international colleagues by sharing knowledge	Muthusamy and White (2005)
TRUST	
Employees feel safe sharing knowledge with colleagues	Levin et al., (2002)
Sharing knowledge make employees feel included (meaning that they are willing to share their personal tacit knowledge with colleagues)	Levin et al., (2002)
Sharing knowledge make employees feel they are part of the organisation's community (meaning that they feel safer in working with their colleagues to generate new knowledge)	Levin et al., (2002)
Employees are recognised for sharing their knowledge	Levin et al., (2002)

Employees know they will receive credit/recognition from their line manager for sharing ideas	Levin et al., (2002)
Sharing knowledge builds benevolent trust between the subsidiary and the parent	Levin et al., (2002)
VALUE	
Employees know their knowledge has value	Phene and Almeida (2008)
Employees' knowledge is treated as valuable by the organisation	Phene and Almeida (2008)
Employees have knowledge unique to our organisation which is important to our success	Phene and Almeida (2008)
It is important to collect/codify knowledge in our organisation	Phene and Almeida (2008)
As an organisation we know the value of our local knowledge	Phene and Almeida (2008)
As an organisation we actively share knowledge/innovations from subsidiaries	Phene and Almeida (2008)
MECHANISMS OF KNOWLEDGE TRANSFER, our organisation supports knowledge transfer by:	
Actively encouraging staff to share knowledge	Hansen (2002)
Documenting or capturing knowledge	Hansen (2002)
Codifying and sharing knowledge	Gupta and Govindarajan (1991)
Updating practices and policies with new knowledge	Gupta and Govindarajan (1991)
Sharing the benefits of knowledge with examples	Gupta and Govindarajan (1991)
Rewarding staff who share knowledge	Hansen (2002)

CHARACTERISTIC OF KNOWLEDGE TRANSFERED – our subsidiaries have knowledge which is:	
Easily captured and documented in a consistent format (explicit)	Ambos et al., (2005)
Easily communicated and shared (explicit)	Ambos et al., (2005)
Novel or innovative and distinguishes us from our direct competitors (tacit)	Miesing et al., (2007)
A source of value to our customers (explicit)	Miesing et al., (2007)
Built upon unique employee knowledge or experience (tacit)	Miesing et al., (2007)
Non-replicable as it is the outcome of interlaced processes and procedures (tacit)	Miesing et al., (2007)
PACE OR SPEED OF KNOWLEDGE TRANSFER – between the subsidiary and parent:	
The new technology which was transferred from your subsidiary was very fast	Khan et al., (2015)
The new technology was transferred from your subsidiary in a timely fashion	Khan et al., (2015)
It took our company a short time to acquire and implement the technology provided by our subsidiary	Khan et al., (2015)
The subsidiary is highly motivated to share new knowledge promptly	Chen and Lovvorn (2011)
Organisational processes make it easy to share knowledge quickly	Chen and Lovvorn (2011)
The subsidiary knows why it is important to share knowledge quickly	Chen and Lovvorn (2011)

Within your organisation, what role does POWER play in knowledge sharing?	
Subsidiaries share knowledge freely and are not compelled to do so	Ipe (2003) Wong and Lee (2008)
Knowledge is used as a moderate source of power by some in the organisation	Ipe (2003)
Knowledge is used as a source of power in exchange for resources in negotiations	Ipe (2003)
Some employees withhold their tacit knowledge to protect their position	Ipe (2003)
Some employees partially withhold knowledge by omission to protect their position	Ipe (2003)
Subsidiaries are compelled to share knowledge by the parent organisation which holds power in some form	Ipe (2003)
TYPES OF KNOWLEDGE SHARED – our organisation has specialist knowledge in:	
Technological expertise	Birkinshaw et al., (2002)
Manufacturing processes	Birkinshaw et al., (2002)
Design and development (software)	Birkinshaw et al., (2002)
Product development	Birkinshaw et al., (2002)
Marketing and branding	Birkinshaw et al., (2002)
Cultural norms and practices	Birkinshaw et al., (2002)
Motivation	
To adapt the existing subsidiaries knowledge to suit the GCC market	Phene and Almeida (2008)
To develop new knowledge with your subsidiaries as part of a global innovation programme	Phene and Almeida (2008)

To exchange complementary technology with your subsidiaries	Phene and Almeida (2008)
To produce your company's established product range for the GCC market	Phene and Almeida (2008)
To develop and produce products that are new to the GCC market	Phene and Almeida (2008)
To help the parent company communicate more effectively	Phene and Almeida (2008)
To help the parent form a community of practice	Phene and Almeida (2008)
EVIDENCE OF KNOWLEDGE UTILISATION – on the basis of knowledge transferred from a subsidiary, the parent company has:	
Changed standard processes	Adenfelt and Lagerström (2008)
Instigated market research	Adenfelt and Lagerström (2008)
Retrained employees	Adenfelt and Lagerström (2008)
Updated company procedures	Adenfelt and Lagerström (2008)
Switched to a new supplier	Adenfelt and Lagerström (2008)
Won more business from a customer	Adenfelt and Lagerström (2008)
ACTION OF THE BASIS OF KNOWLEDGE – on the basis of knowledge transferred from a subsidiary, the parent company has:	
Discussed how knowledge could be used and applied	Lagerström and Andersson (2003)
Recognised that knowledge may need to be adapted for a local market	Lagerström and Andersson (2003)
Invested in new equipment or staff to disseminate knowledge	Lagerström and Andersson (2003)

Invested in further R&D to explore new opportunities	Lagerström and Andersson (2003); Andersson et al., (2016)
Restructured parts of the organisation to exploit new knowledge	Lagerström and Andersson (2003)
Introduced new products and services which are unique to the parent company's market	Lagerström and Andersson (2003)
SIMILARITIES BETWEEN PARENT AND SUBSIDIARY – The parent and subsidiaries have:	
Genuinely shared values	McDermott and O'Dell (2001)
Similar or comparable business practices	Hansen (2002)
A sense of shared history and culture	Hansen (2002)
A shared or similar view of “how business is done”	McDermott and O'Dell (2001)
A similar positioning in their respective markets (e.g. premium, mid-range)	Frost and Zhou (2005)

Source: The researcher

5.7 Data collection procedure

The data for this study has been collected through a questionnaire survey. The detailed literature review presented above in chapters two and three shows clear gaps in the pertinent field of studies to date. Besides this, secondary data has also helped in gaining various theoretical perspectives shared by authors in the past (Tuohy et al., 2013). However, before distributing the questionnaire-survey it is good practice to test the research instrument by means of pilot testing to be assured of its reliability and validity. The pilot testing was conducted among a small number of individuals to ascertain the suitability of the instrument to test the hypotheses as previously articulated.

5.7.1 Pilot study

In order to ensure that the items generated are suitable, a pilot study is suggested to check the accuracy of the developed measurement scale. In accordance with the guidelines provided by

Dilamn (1991), the next step is to ensure the reliability of the scale. Reliability and validity testing of the measurement scale is critical before executing the main research. For the purpose of completing this stage, the researcher first circulated the questionnaires among a few academics in the field of international business for their expert opinion on the instrument, in order to ensure face validity. The language was altered as necessary in line with their opinions. Once the experts have agreed that the developed instrument is suitable for measuring the constructs, it was considered ready for the pilot study.

As per the instructions of Malhotra and Birks (2003), the pilot study should be conducted among relevant elements from the population with similar characteristics to those who will be included in the actual survey. For the data collection in the pilot study, as discussed earlier, judgemental sampling, which is a non-probability sampling technique was used. The population elements will be selected on a purposive basis to ensure that they are truly representative of the entire population under consideration (Churchill, 1996). Using the same criteria as those discussed above, the data for the pilot study was gathered from managers of multinational companies that are based in GCC countries and have subsidiaries in developed countries. Since a pilot study is conducted to test the developed instrument, a small number of respondents – around 6 are required. However, taking the suggestion of Hair et al. (2010) into consideration, the sample size for the pilot study was chosen to be a little higher than the number of items in the instrument. Hair et al. (2010) also argued that the sample size should be a minimum of 50, or preferably 100, to get true results. The likely response rate to the mail questionnaire is considered to be low. In order to resolve this issue, the confidentiality of respondents was given top priority. In order to maintain confidentiality, the profile data was not used as selection criteria. Furthermore, in the pilot study, any items found to be ambiguous will be obvious.

The pilot test was conducted in January 2020. It was carried out by posting 10 questionnaires via special delivery (with return postage paid) to managers at company headquarters in Saudi Arabia and the UAE. The aim of the pilot study was to find out how appropriate the sections and items in the questionnaire were, and to establish whether they were consistent and reliable. The experts who supported the pilot testing of the research instrument were identified because of their known expert knowledge in RKT as their roles at the time of supporting the research involved working with subsidiaries of their organisations. The experts were all managers in their organisations with

direct responsibility for some aspect of RKT and were familiar with the terms and concepts associated with RKT so they would understand the nature and purpose of the questions being asked, with no need for detailed additional explanation. Furthermore, because the managers identified as part of the pilot testing exercise were familiar with the concept of RKT, they were also more willing to fully support the pilot test and provide constructive feedback which enabled minor modifications to the wording. This approach is consistent with the recommendations of Hair et al., (2010) who offer guidance on finding individuals willing and able to provide constructive advice and input when developing and testing research instruments.

Four Saudi managers returned the questionnaires about a week after they had been posted, followed by two more Saudi managers and two from the UAE, all of whom sent the questionnaires back about two weeks after they had been posted. The information obtained from the pilot study offered useful indications regarding how robust the variables used in the research study were overall. Bryman and Bell (2015) indicate that a 60% response rate (6 out of 10) for a pilot test is well above average as a return rate for a postal questionnaire/survey, and this is informally indicative of the likely interest and engagement in the research. For comparison, Bryman and Bell (2015) suggest that on average a postal response of approximately 20% would be considered normal, and thus this gave confidence in the likely willingness of organisations to participate in the research.

5.7.2 Validity analysis

The construct validity of the questionnaire will be measured by approaching independent experts who are familiar with the concept of RKT. They have been asked to examine the measurement with respect to each item on the questionnaire. Amendments will be made after their feedback to ensure the accuracy of the research results.

5.7.3 Reliability analysis

As Marshall and Rossman (2014) emphasise, measurement can be valid but not reliable, or reliable but not valid. This research project therefore aims to achieve both accurate *and* reliable data collection, and cogent data analysis and interpretation to ensure validity. As the number of respondents is adequate for the pre-test sample size (Malhotra and Birks, 2003), it is then necessary to test the reliability of the scale (Churchill, 1979). Reliabilities are of several types, but in this

study internal consistent reliability will be measured to evaluate the degree to which the responses to the items on the questionnaire produce similar results.

The first step is to check the internal consistency of the items used in the scale (de Vellis, 1991; Churchill, 1979). The second step is to check the test-retest reliability to ensure that there is least fluctuation over the period of time (Nunnally, 1978). The third step is to check an alternative form of reliability which measures the extent to which different statements can be used to measure the same construct at different times (Netemeyer et al., 2003). In this study, only the internal consistency of the scale, which shows that items of the same construct are highly intercorrelated, will be used to check reliability. This intercorrelation shows that the items used to measure a construct share the same common core (de Vellis, 1991; Melewar, 2001; Netemeyer et al., 2003), i.e. showing that they are all measuring the same things.

In the current research, the internal reliability of the items will be checked by means of Cronbach's alpha using the Statistical Package for the Social Sciences (SPSS). Based on the assumption of Mertens (2014), it is noted that the Cronbach's alpha value should be in the range of 0.75 to 0.95. The reliability test performed on the questionnaire items is expected to produce a value within the given range, showing that the data will be internally consistent.

In the pilot study analysis, all the variables had a Cronbach's alpha value greater than 0.70, with overall results ranging from 0.70 to 0.95. A Cronbach's alpha with a value of 0.70 or more signifies that the coefficients are reliable and consistent.

5.7.4 Main data collection for the study

The total population identified in this research was the headquarters of 236 firms: of these, 60 were in the KSA, 55 in the UAE, 45 in Kuwait, 50 in Qatar, 24 in Bahrain and two in Oman. Census sampling was used, on the grounds that every unit that was selected had characteristics included in the criteria for this study. The criteria applied were firms with headquarters in GCC countries (developing countries) that had a subsidiary in developed countries.

The population sample was triangulated through the Bloomberg database, company reports and various business and investment websites. The data collection process started with the collection

of the names and addresses of managers, which were drawn from the companies' websites and Bloomberg database. This information was then verified and triangulated using company reports, and various business and investment websites. This process took a month of full-time work.

The sample of companies identified for inclusion in the research can be considered as representative based on three factors. First, and most importantly, the approach to census sampling confers a higher degree of statistical confidence because in theory the entire possible population has been included in the sample making it, by definition, fully representative. This also gives every organisation the opportunity to put their views forward and can enable the capture of additional aspects which may have been inadvertently omitted from previous studies and thus not included in the research instrument. Second, whilst it can be a costly and time-consuming approach (as evidence by the amount of time taken to triangulate the sample) it is the most comprehensive approach to sampling which most closely reflects the actual population. Third, it is considered to give the most comprehensive data set of any approach to sampling and data collection. Taking all of these factors into account, there can be high confidence that the sampling approach adopted has given a representative sample of MNEs within the GCC region that have subsidiaries in developed economies.

The questionnaires were printed in English (see appendix 1). Sheffield University logo was included to ensure that the respondents knew that the data would be used only for research purposes. Each questionnaire was personalized and included the name of the individual headquarters managers to which it was addressed. The questionnaires were posted in different batches. All were posted from the KSA in envelopes including the consent form and participant information sheet (see appendix 2 and 3), plus the author's student status letter. The return postage was paid to accelerate the process. All the questionnaires were posted in envelopes addressed individually to each of the managers concerned.

The batches addressed to headquarters in the KSA were posted on 18 January 2020. Those for headquarters in the UAE and Kuwait were posted on 20 January 2020. Finally, the questionnaire batches for the headquarters in Qatar, Bahrain and Oman were sent on 30 January 2020. The questionnaires were sent in different batches in order to facilitate the process in multiple ways. Firstly, it helped in organizing and maintaining the data in separate phases, which can help in reviewing the responses more easily. Secondly, different batches of data can help in comparing

each respondents' answers and by exploring the differences and varying perceptions in their answers.

Towards the end of February 2020, questionnaires from the KSA headquarters began to be returned. By the beginning of March, a total of 13 surveys from the KSA headquarters and 15 from UAE headquarters had been returned. By early April 2020, 11 questionnaires from headquarters in Kuwait had been sent back. Those from headquarters in Qatar, Bahrain and Oman began to be returned in May: by mid-May a total of 13 had been returned, seven from Qatar, one from Oman, and five from Bahrain. Reminders were sent to the recipients of the first, second and third batches at the end of May 2020. Following the reminders, 16 more surveys were returned by headquarters in the KSA, 20 more by those in the UAE, 21 more by Kuwaiti headquarters, 16 more by Qatari headquarters and 10 more by Bahraini headquarters.

After the initial mailing and the follow-up reminders, a total of 135 questionnaires were returned, which corresponds to an overall response rate of 57%. This is a very satisfactory outcome of the collection process. To be more precise, 29 questionnaires were gathered from headquarters in the KSA, 32 from those in Kuwait, 35 from those in the UAE, 23 from those in Qatar, 15 from those in Bahrain and finally one from Oman. The overall response rate from the headquarters in the GCC as a whole was 57%, while a response rate was also calculated for each individual country. The breakdown is shown in Table 5.2.

TABLE 5. 2: RESPONSE RATE PER PARENT GROUP

Number of questionnaires sent	Number of headquarters in GCC countries	Response	Response rate
KSA	60	29	48%
Kuwait	45	32	71%
UAE	55	35	63%
Qatar	50	23	46%
Bahrain	24	15	62%
Oman	2	1	50%
Total	236	135	57%

Source: The researcher

5.8 Data analysis tests and techniques

Once the data had been collected, it is obviously necessary to analyse the data using a number of tests and techniques in order to support a thorough analysis of the data and provide confidence in terms of validity and reliability. The tests and techniques applied to analyse the data included descriptive statistics analysis, outlier analysis, normality analysis, homoscedasticity analysis, Partial Least Squares (PLS), Structural Equation Modelling (SEM), and finally hypothesis testing. In this section the chapter describes and justifies the use of this range of tests, explaining why it was necessary to apply the tests, and how their application contributed to the outcome of the research.

Field (2013) recommends that as a matter of good practice when conducting statistical analysis, it is prudent to begin the analysis with the application of descriptive statistics in order to understand the shape nature of the dataset, and to provide early indicators as to whether particular aspects of the dataset would merit closer scrutiny. Descriptive statistics in this instance we used to evaluate the demographics of the population sample, including but not limited to the location of the parent company, the age of the parent company, the size of the parent company and the age size and location of the subsidiaries. These are all factors which are known to contribute to aspects of RKT, and the data analysis descriptive statistics revealed a useful appreciation of the size and type organisations which were included within the dataset.

Subsequent supporting tests to establish any outliers, tests of normality were also applied, as Flick (2018) highlights the importance of considering the adverse potential impact outliers which might distort the dataset - for example particularly young particularly old organisations, or those who responded to the questionnaire sharing what appeared to be abnormal responses. There might be some justification for selective winsorising of the data, for example as it becomes apparent that whoever completed the survey questionnaire misunderstood the nature of the survey instrument and answer the questions in reverse, something which Bryman and Bell (2015) can happen. This was fortunately not necessary, and the dataset does not require any additional evaluation.

Tests of normality were conducted in accordance with the suggestions of Hair et al., (2006), recommend tests of normality to confidence in the distribution of the dataset and all of the linear combinations are appropriately represented. Tests of normality are also a prerequisite or precursor

of modelling, as without confidence in the distribution through the test of normality, subsequent results of modelling can be either distorted or even nonsensical. Two tests of normality were conducted to give confidence in the dataset which included graphical methods i.e. Q-Q plots, with the latter showing a representation of the expected versus normal distribution. The second tests of normality included assessments of kurtosis – or ‘skewedness’ - which provide an illustration of whether dataset is abnormally clustered to the left or the right of with a normal distribution curve would be expected to lie (Pallant, 2007). Such kurtosis can be an indication of a distorted dataset, which is not necessarily wrong, but extending the advice of Field (2013) gives an early indication whether it may be necessary to look for additional information elsewhere.

Tests of homoscedasticity or ‘noise’ in the dataset were also evaluated, using [homoscedasticity is Levene’s test of equal variance]. Levene’s test assesses whether the distribution of the dataset has a broadly equal distribution of variance across the variables. This is important for subsequent sophisticated testing, as if there is any abnormality in homoscedasticity, then this can also distort the efficacy of the models. To satisfy the test of homoscedasticity, a low probability score is necessary of <0.005 - or in other words less than half of one percent. As will be discussed in the following chapter, all of the conditions for satisfying Levene’s test were met.

In addition, test of common factor bias was undertaken using factor analysis and principal component analysis to ensure that no latent variables were present with distorted the overall outcomes. As Hair et al., (2006) observe, this is a useful additional test to ensure that no undue covariance is present in the dataset due to commonality of scale. These precursor tests are all important to understand the shape nature of the dataset, and have confidence that any subsequent modelling is appropriately robust, and that it is being carried out on the dataset without the need for additional forms of testing such as post hoc analysis because of distortion in the dataset. Because of the relatively large dataset, and the broad distribution, this helped to ensure that no distortion was present meaning that they can be confidence in the subsequent testing of the models and hypotheses.

In order to establish the existence of relationships, the most commonly used method is ordinary least square. However, this has certain limitations; firstly, it requires that data should be collected through probability sampling, which in the given scenario is very difficult, and secondly it requires

that the data must be normally distributed. All the parameters of ordinary least square must be fulfilled. In order to avoid these limitations, Partial Least Square Structural Equation Modelling (PLS SEM) is suggested. SEM has been favoured as an analysis technique because it incorporates multiple mathematical models, and is particularly relevant to social sciences in terms of its capacity to impute the presence of latent (hidden) variables which are highly likely to be present in respect of knowledge and predicted tacit knowledge, which individuals may be unaware that they possess (Oliveira et al., 2015)..

There is also a significant precedent for the use of SEM in terms of the quantitative analysis of knowledge within the context of social sciences, hence its utilisation in the circumstances. The creation of an appropriate structural model requires first the development of potential causal relationships between endogenous and exogenous variables, i.e. explicit and tacit knowledge. The second component of SEM requires the development of a measurement model that precisely articulates the relationship between the dependent and latent variables. Typically, this requires the application of factor analysis in a social science setting, as it is likely that the variables will occur in combination, creating the conditions for the latent factor to emerge.

The decision was taken to utilise Structural Equation Modelling (SEM) to analyse the dataset, and more specifically in this instance Partial Least Squares (PLS) SEM. PLS provides a specific form of linear regression modelling which predicts the outcome of combined observable and predicted variables, thus giving a more realistic understanding of the impact of variables in combination. Cramer (1993) argues that this is an effective way to measure and test for the existence and strength of impact of unobservable factors when it is known that they must exist – e.g. tacit knowledge – but it is not always possible to observe how such factors manifest in practice or reality. Cramer (1993, p.270) also suggests that PLS is superior for these types of analysis because “*it projects to a new space*” and is thus better for modelling complex social problems or issues which manifest as a consequence of the interaction of variables – in this instance trust, social equity and willingness to share.

In addition, there is precedent in the existing literature for the use of this technique, such as the work of Nair et al., (2018) (Chapter 1, Table 1.1) who utilised PLS-SEM when evaluating RKT from 183 UK-subidiaries back to their Indian parent firms who are/were MNEs. Lyu et al., (2020)

adopted a similar approach when analysing RKT and inter and intra firm co-operation between 270 subsidiaries and their Chinese parent firms. In both instances the output of these research works were cited in highly regarded journals giving additional confidence in the method and approach. However, it is necessary to briefly note that there are some critics of PLS such as Cramer (1993, p.272) who states that “*the major **limitations** are a higher risk of overlooking 'real' correlations and sensitivity to the relative scaling of the descriptor variables*”. On balance given the support for and recent use of PLS-SEM it was considered to be the preferred modelling technique.

More recent discussion on the utilisation of PLS-SEM can be found in the work of Hair et al., (2014) and Sarstedt et al., (2017) who consider the adoption of PLS-SEM in relation to business research (Cramer was evaluating the use of PLS-SEM in relation to long term drug developments). As Hair et al., (2014) comment, PLS-SEM has gained increased traction as a tool in relation to business and marketing research, and their meta-analytic literature review traces the path of its development and adoption. Hair et al., (2014) conclude that PLS-SEM has much to commend it, but that there are still some methodological aspects to be critically considered such as that relating to multi-group analysis and cross-functionality analysis, both of which have relevance in this study due to its focus on MNEs operating multiple disciplines. Sarstedt et al., (2017) further extend the discussion, examining how the use of increasingly advanced software has supported the application of PLS-SEM in helping to critically evaluate complex business problems. Collectively it can therefore be considered that through the empirical and methodological literature there is strong support for the adoption of PLS-SEM in this study.

The selected data analysis technique in this research (PLS SEM) will use three scale instruments to identify, measure and compare the capture and sharing of knowledge on a reverse basis (Santoro et al., 2018). The use of multiple scales ensures internal reliability and consistency within the data collection and analysis, given the subjectivity of knowledge and the inherent difficulties of precisely defining a unit measure of knowledge for comparison (Qureshi and Kang, 2015). There is precedent in the literature for such techniques, including the work of Politis (2001), Lin (2007) and Eriksson et al. (2015), all of whom have examined the measurement of knowledge flows in different contexts. The collection and analysis of data requires a sufficient volume of data to be collected, using an appropriate instrument, which is internally reliable, valid and

generalisable. The use of three scale instruments will require the development of a novel research instrument. As such, it will be necessary to develop a pathway of tentatively assumed causal relationships between exogenous factors which can be visualised and then tested using factor analysis. Such testing typically works more effectively with a large dataset, as articulated by Raykov and Marcoulides (2012), meaning that as an ideal, there should be a population sample of approximately 200.

Hypothesis testing was also carried out to evaluate the path relationships following the guidance of (Wetzels et al., 2009; Hair et al., 2011). Put simply, hypothesis testing is a means of establishing whether the results of test modelling are meaningful or statistically significant. Chapter 4 describes in some detail the theoretical underpinning of the hypotheses in this work, with particular focus on the impact of mediating variables which were believed, on the basis of literature significant influencing effect on factors related to RKT between parent and subsidiary firms within the context of this study. The hypothesis testing was conducted after the evaluation of the PLS-SEM testing as described above and followed methodological guidance with regard to the structure of the hypotheses. Measures of support for the hypothesis include statistical significance at the 0.05 level, signs (path coefficients) in the expected direction, and path coefficient value (β) of between nought 0.298 and 0.489. It is possible for there to be evidence of the path coefficient, but insufficient statistical significance which as will be discussed in the following chapter did occur on some occasions within this dataset.

5.9 Interpretation

Interpretation can be understood as making sense of the phenomenon under study (Willig and Flick, 2013). After carrying out the data analysis of the contents of the questionnaire, the results have interpreted in order to understand the relationship between the independent variable (the *explanans*) and the dependent variable (the *explanandum*) (Bartholomew et al., 2002). This meta-level of understanding points up the need to consider the essential of the general philosophical aspects of carrying out research in the social sciences, including business studies. The aim here being to evaluate in what ways and to what extent the RKT has been effective.

5.10 Ethical theories and the researcher

Applying different ethical theories to the ethics of the researcher, two observations can be made. Firstly, regarding deontological ethics, the researcher has a tacit obligation to protect the anonymity of their sources and not to divulge information – e.g. for bona fide research purposes – without the permission of the respondents. This stricture applies in the case of research which involves questionnaire study as is the case with the present research study. Secondly, in terms of virtue ethics, in an age of “after virtue” (McIntyre, 1984), just as the “character” of managers is evaluated with regard to qualifications rather than with regard to some ideal “virtuosity” of behaviour (other than being honest and trustworthy as well as professionally competent), so the researcher’s obligation to protect the security of his/her sources is a norm to adhere to rather than a trait of character. In other words, utilitarian/pragmatic values are given priority over maxim (rule)-orientated ethics. The latter pertain in organisations governed by institutional rules. They are made explicit in formulated documents, in contrast to tacit understanding or the informal culture of an organisation.

The role of the researcher in this instance is to understand, and not to morally judge either the explicit rules or tacit understanding in an organisation. However, the researcher may adopt a normative standpoint and offer recommendations for positive changes in an organisation’s operations, and this is the case with this research project, with the concern for the CD of an organisation. At the level of axiology (the study of values) the distinction between “value reference” and “value bias” is pertinent to this research project. Generally, business morals and ethics reflect business values - the values define the extent of ethics, or eventually also unethical behaviour, and so define the dominant business culture (McClaren, 2000; Schwab, 1996).

On this understanding, the deontological commitment of a researcher excludes him/her from manifest preferences in serious social science study, but the very fact of having an interest in a research topic implies that the researcher has a value reference. In the case of this project, the very title implies that more effective RKT is desirable. It would not be logical for the researcher to wish for the opposite.

Above all, this researcher acknowledges the need to respect the privacy and intellectual property of the individual respondents regarding the questionnaire that has been administered, and, especially, to the interlocutors taking part, while also noting the need to protect the participants

against data theft and diminished competitive advantage due to knowledge loss. Special note will also be taken of the respective rights of individual of the parent organisations.

The main ethical point to note here is that the “Request for Assistance” that heads the questionnaire explicitly respects the confidentiality of the participant and states that “the questionnaire... is intended to gather information concerning the knowledge transfer practices among the headquarter organisations in the GCC.”

This research has minimal risk to the respondents. No one is being pressured to participate: their involvement is completely voluntary. If they decide to participate, they are free to not answer any question. They also have the full right to withdraw from the research at any time, at which point all information relating to them will be deleted.

5.11 Summary

This chapter has described in detail how data was collected to test the hypotheses posed in chapter 4 of the study, addressing the fundamental framework of data collection and subsequent analysis. This research has relied upon a bespoke research instrument developed from literature with subsequent extensive testing and demonstrable evidence of validity and reliability as well as explanation of the data analysis techniques and the subsequent interpretation. Throughout this thesis, it has been the position that there is a novel aspect to the nature of RKT when knowledge is being transferred from subsidiary in a developed economy back to parent in a developing economy. It is also the position of this research that there are unique characteristics associated with the context of the research which have relevance for contemporary knowledge and understanding. What follows in chapter 6, is empirical evidence of this data collection and testing, set against the research hypotheses, objectives and research questions.

CHAPTER 6: EMPIRICAL CHAPTER

6.1 Introduction

This chapter presents the results and findings of the study, interspersed with critical discussion of the same. As will be recalled, following an extensive review of the literature, six hypotheses were developed from the literature to test varying aspects of the relationship of Reverse Knowledge Transfer (RKT) between the subsidiary and parent firm, when the parent firm is based in the GCC, and the subsidiary is in a developed economy. It has been contended throughout the study that the novel aspect of this relationship, is that in this situation where the parent firm is in a developing economy, the parent places much greater value on the knowledge which is returned from its subsidiaries in developed economies. Typically, literature reveals that the converse is true, whereby parent firms or headquarters in developed economies remain somewhat dismissive of the value of RKT when the subsidiary is in a developing economy (Chung, 2014; Driffeld et al., 2016; Oh et al., 2016).

Working from the premise that greater value is placed on RKT when the parent firm is in developing economy and the subsidiary is in developed economy, this study further set out to examine differing dimensions of the nature of this relationship to ascertain whether any particular variables have a greater impact on the nature of RKT. Specific variables under evaluation include organisational power, speed of knowledge transfer, willingness to engage in knowledge transfer, the existence of trust and social equity between the parent and the subsidiary, and also the mechanisms of knowledge transfer and the types of knowledge transferred. Previous literature has examined varying aspects of the nature of all of these variables serving as mediating factors to the RKT relationship (**Chapter 2.0**), but the unique contribution of this study has been to bring all of these aspects together, specifically examining a typically inverse relationship in terms of knowledge transfer between parent and subsidiary. Accordingly, this chapter briefly presents an overview of the study, before presenting the results of the data analysis and discussing the findings of the hypotheses in turn.

6.2 Overview of the Study

In order to examine the relationship of RKT between parent and subsidiary when the parent is in the GCC and the subsidiary is in a developed economy, the first stage of the process was to conduct a detailed review of existing literature examining concepts of RKT. This review examined aspects such as defining what knowledge is, and what the characteristics of knowledge might be considered to be in order to understand how knowledge can be in some way captured and codified and then actively transferred. Plentiful literature exists examining varying dimensions of knowledge as an organisation construct (Polanyi, 1962; 1966; Nonaka and Takeuchi, 1995; Hodgson, 2017; Rogan, 2017), particularly emphasising the fact that knowledge as an intangible organisational resource, has the capacity to become a source of unique and sustainable competitive advantage for organisations. However, this situation of sustainable competitive advantage is subject to caveats, in that the mere existence of knowledge alone is not enough. Organisations must both arrange the resources in some way to ensure that they capture knowledge in all of its various forms (Argote et al., 2003), and that once the knowledge is captured the organisation has mechanisms which facilitate knowledge diffusion and transfer, and that employees can act upon this knowledge to secure competitive advantage (Ganco, 2013).

In this regard, literature holds that there are certain key features of effective knowledge transfer which greatly increase the likelihood of knowledge transfer being successful in as far as employees and the organisation collectively benefit from the process of knowledge transfer. It is also important to highlight that in literature it is typically the case that knowledge transfer implies a relationship of knowledge being transferred from a parent to subsidiary (Osterloh and Frey, 2000), on the assumption that the parent is in possession of superior organisational knowledge or experience. A simple example might be a parent firm imparting knowledge with regard to quality controls in order to maintain brand consistency and service experience, thus serving as a source of competitive differential advantage.

There are also certain features relating to knowledge transfer which serve as mediating variables impacting the likely efficacy of knowledge transfer. These relate to uncertainty surrounding the conditions of knowledge transfer, which present themselves through unintentionally confused communication and misunderstanding - what might be popularly referred to as cross-cultural confusion. In addition, organisation knowledge is often treated synonymously with innovation,

and literature confirms that it is often the case that the transfer of knowledge generates incremental innovation as a by-product (Andersson et al., 2016). For example, due to macro and micro level conditions specific to the parent of the subsidiary, the application of knowledge with regards to a new way of undertaking operations when contextualised in a new situation, generates additional layers of innovation. In any event, the potential cross-cultural confusion side knowledge transfer is typically considered as beneficial provided that it can be carried out consistently.

Turning to the discussions of the practicalities of knowledge transfer in Multinational Enterprises or Multinational Corporations (MNEs or MNCs), reveals a large body of literature. It is hardly surprising that knowledge transfer in MNEs has been subject of such intense discussion, because it is perfectly understandable that parent firms would wish to transfer knowledge to the subsidiaries in order to maintain consistency of service, operations, and overall organisational activity. In addition, research also confirms that there is the potential for MNEs to benefit from RKT - or in other words - the parent firm benefits from unique knowledge held by the subsidiary, such as insight into local markets, or access to particular resources (Buckley et al., 2003; Frost and Zhou, 2005; Driffeld et al., 2016). However, as the entire subject of this thesis confirms, RKT is a field which has quite mixed results in its research. Theoretically, RKT should be enthusiastically embraced by multinationals because it ought to offer a source of unique and sustainable competitive advantage. In practice, many intangible barriers exist which significantly inhibit the success and smooth operations of RKT, effectively leading organisations to self-sabotage opportunities to differentiate themselves.

The unique contribution of this research is that is the nature of this relationship of RKT from an under-explored perspective, where the parent firm is a developing economy, and the subsidiary firm is in a developed economy. It is posited in this research that because this relationship is effectively reversed, the parent firm is manifestly more interested in the knowledge like to flow from subsidiaries, and thus is likely to pay much closer attention to RKT and to act upon the transferred knowledge in order to secure competitive advantage. The reason for this presumptive assumption is that parent firms which are established in developing economies such as the GCC recognises that whilst there might have financial resources, in this instance stemming from oil wealth, there is a lack of knowledge resources in relation to advancements in technology, overall levels of education, and supporting knowledge infrastructure which developed economies have

had many years to establish. In plain terms, parent firms in the GCC seeking to establish themselves internationally are actively seeking knowledge from their subsidiaries in developed economies, and this inverse relationship impacts upon the nature of knowledge transfer in terms of its speed, efficiency, willingness to transfer knowledge on the part of the subsidiary, and subsequent competitive action by the parent firm as a result.

In order to test the nature of this relationship of RKT and six mediating variables of power, culture, speed of knowledge transfer, willingness and knowledge transfer, social equity, and cultural similarity and difference, six hypotheses were developed to isolate and measure the impact of these mediating variables on RKT activity. These hypotheses were directly developed from literature and are discussed in depth in **Chapter 4.0**. **Chapter 5.0** describes how the data was collected and analysed from suitable firms in order to provide a dataset to test these hypotheses, and what follows below is presentation of the results of the hypothesis testing and findings with subsequent critical discussion through the lens of literature and theory. In each instance and for ease of reference, the hypotheses are re-presented, with evidence of the findings and ensuing interpretation and critical discussion offering possible explanations for the outcomes.

In the next sections, the results are introduced in five major sections. In the first section, presents the descriptive statistics of the participants' demographic characteristics and their responses to the research instrument. Second section data examination is first evaluated, to ensure that the required data assumptions for multivariate analysis were met. In the third section, the structural equation modeling (SEM) techniques is introduced, practical considerations and justifications to use the PLS in this study. Followed by two sections presenting the two-step process to analysis the proposed model. In the first step the measurement model is assessed for validity and reliability presented in Section). Finally, second step of the analysis by evaluation of the structural equation model and conducting path analysis to test the hypotheses proposed in the study. To accomplish the statistical analysis using PLS, the SmartPLS software package was used, as well as SPSS and PRELIS for data examination and descriptive statistics.

6-3 Descriptive Statistics:

This section presents the descriptive statistics of the study and provides an insight into the survey responses of the 135 participants in our study. As the first step in data analysis, descriptive statistics are used to describe the basic features of the responses. It begins with the results of demographic characteristics of the participants and subsidiary's information, followed by participant's responses to the research instrument.

TABLE 6. 1: DEMOGRAPHIC CHARACTERISTICS OF THE PARTICIPANTS

Demographic Characteristics		Count	Percentage
Gender	Male	111	82.2%
	Female	24	17.8%
Age	20 – 29 years	23	17%
	30 – 39 years	35	25.9%
	40 – 49 years	39	28.9%
	50 - 59 years	29	21.5%
	+ 60 years	9	6.7%
Nationality	UAE	35	25.9%
	Kuwait	32	23.7%
	Saudi Arabia	29	21.5%
	Qatar	23	17.0%
	Bahrain	15	11.1%
	Oman	1	0.7%
Highest level of formal academic education	Undergraduate degree	59	43.7%
	Masters	47	34.8%
	PhD	12	8.9%
	Other	17	12.6%
Length of employment for your current employer	0 – 2 years	22	16.3%
	3 – 5 years	39	28.9%
	6 – 10 years	38	28.1%
	11 – 15 years	24	17.8%
	+ 16 years	12	8.9%

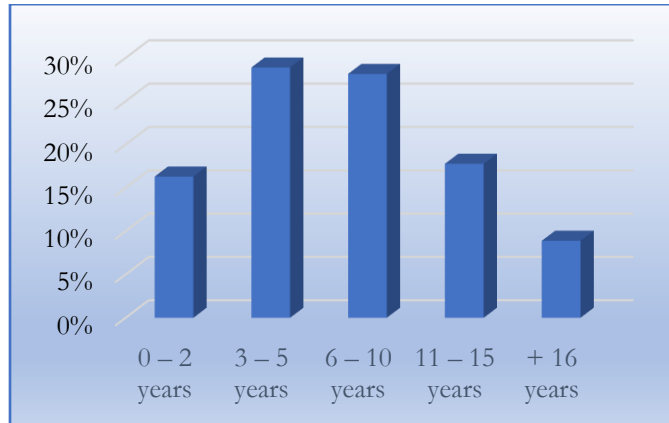
Professional working life	0 – 10 years	24	17.8%
	11 – 20 years	53	39.3%
	21 – 30 years	43	31.9%
	31 – 40 years	15	11.1%

Source: The researcher

Table 6.1 shows the frequency distribution of participants according to gender, age, nationality and highest educational degree. (82.2%) were male, and the remainder (17.8%) were female. The age Based on the descriptive analyses, we found that most of the participants distribution of the participants, ranging from 20 to above 60 years. The most common group was between 40 to 49 years 28.9%, and the least common age group was Above 60 years 6.7%. According to table 6.1 participants of the current study represent all countries in the gulf cooperation council (GCC) with different percentage, As we found that the most represented country in the sample is UAE (25.9%) followed by Kuwait, Saudi Arabia, Qatar, Bahrain, and finally Oman with only one Participant. With respect to educational level, the results showed that most of the participants have an undergraduate (43.7%) and/or masters (34.8%) degree, while only 8.9% of them holding a PhD and 12.6% with other educational degree.

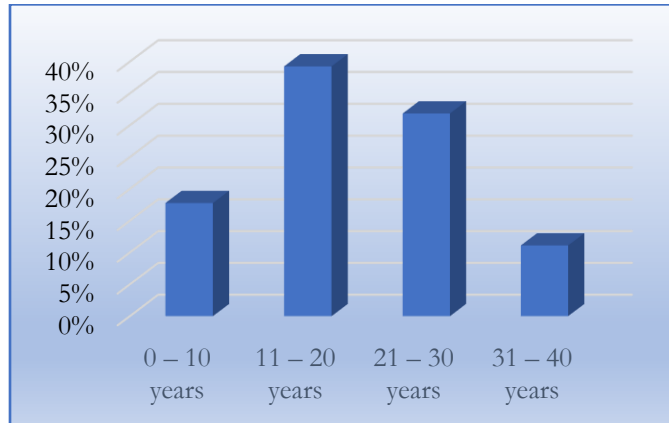
In addition, demographic characteristics of the participants, table 6.1 shows the distribution of participants according to working life characteristics. When the participants asked the length of employment to the current employer, the results reveal that 8.9% of them working for this firm for more than 16 years, and the largest two groups of participants are 3 to 5 years 28.9% and 6 to 10 years 28.1% (figure 6.1). The overall professional working life of the participants range for less than 10 years up to 40 years of working experience. The most common group was between 11 to 20 years 39.3%, and the least common group was 31 to 40 years 11.1% (figure 6. 2).

FIGURE 6. 1: LENGTH OF EMPLOYMENT DISTRIBUTION



Source: The researcher

FIGURE 6. 2: LENGTH OF EMPLOYMENT DISTRIBUTION



Source: The researcher

Now, after presenting the results of demographic and work life characteristics of the participants, we will illustrate the results regarding the organization and subsidiary they work for. Table 6.2 shows the frequency distribution of participants according to the activity of the organization they work for and when it was established, in addition to subsidiary size, age, culture and location.

TABLE 6. 2: ORGANIZATION AND SUBSIDIARIES CHARACTERISTICS OF THE PARTICIPANTS

Organization / Subsidiaries Characteristics	Count	Percentage
Financial services	35	39.8%
Petrochemical	16	18.2%
Organization Activity		
Retail	3	3.4%
Agriculture	3	3.4%
Technology	2	2.3%

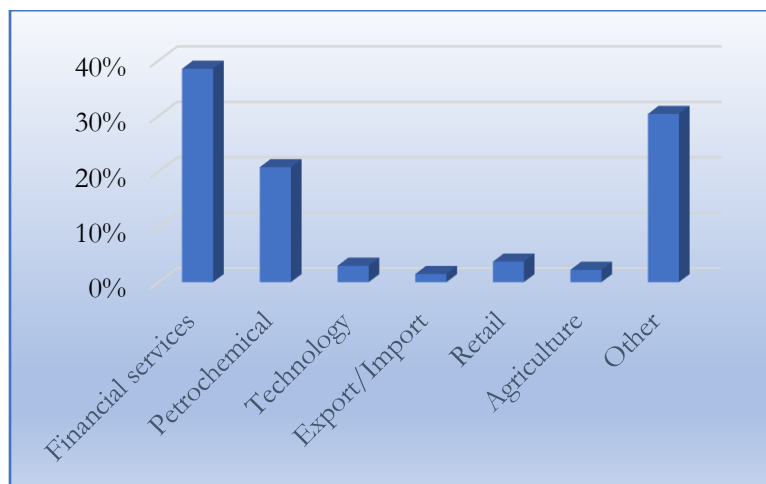
Organization / Subsidiaries Characteristics	Count	Percentage	
	Export/Import	2	2.3%
	Other	27	30.7%
Organization Establishment Date	Before 1950	4	4.7%
	1950 - 1959	9	10.5%
	1960 - 1969	6	7.0%
	1970 - 1979	13	15.1%
	1980 - 1989	15	17.4%
	1990 - 1999	16	18.6%
	2000 - 2009	19	22.1%
	2010 - 2019	4	4.7%
Subsidiary Size	0 – 100 employees	109	80.7%
	101 – 250 employees	24	17.8%
	251 – 500 employees	2	1.5%
Subsidiaries Age	Less than 10 Years	26	20%
	10 to 19 Years	53	40.8%
	20 to 29 Years	38	29.2%
	30 to 40 Years	13	10%
Subsidiaries Culture	Adhocracy	53	39.3%
	Hierarchical	44	32.6%
	Market Orientated	38	28.1%
Subsidiaries Location	UK	48	35.6%
	USA	26	19.3%
	Germany	11	8.1%
	France	9	6.7%
	Italy	6	4.4%
	Switzerland	6	4.4%
	Austria	5	3.7%
	Australia	4	3.0%
	Canada	4	3.0%
Netherlands	4	3.0%	

Organization / Subsidiaries Characteristics	Count	Percentage
Spain	3	2.2%
Sweden	3	2.2%
Belgium	2	1.5%
Ireland	2	1.5%
Norway	1	0.7%
Poland	1	0.7%

Source: The researcher

Based on the descriptive analyses, the 135 participants in our study represent 88 organization located in the GCC, only 4.7% of them was established before 1950, the same percentage of them are established during the period from 2010 and 2019, in the decades in between the percentage of established organization in our sample increases gradually except for the period from 1960 to 1969 (figure 6.4). The most common activity among the 88 organization is financial services (39.8%), followed by petrochemical (18.2%). Both retail and agriculture represent 3.4% each, also, technology and export/import represent 2.3% in our sample and other activities represents 30.7% (figure 6.3).

FIGURE 6. 3: ORGANIZATION ACTIVITY DISTRIBUTION



Source: The researcher

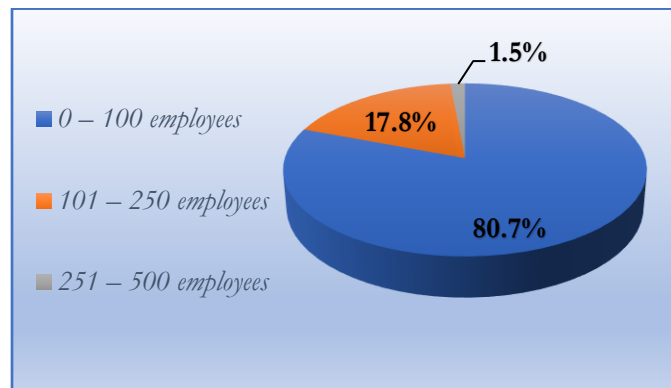
FIGURE 6. 4: ORGANIZATION ESTABLISHMENT DATE DISTRIBUTION



Source: The researcher

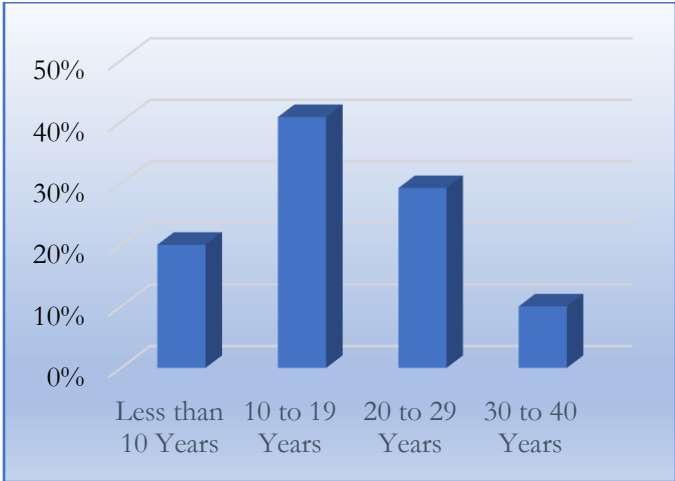
The majority of participants (80.7%) are working in subsidiaries with less than one hundred employees, while 17.8% of the participants work in subsidiaries with 101 to 250 employees, and 1.5% for subsidiaries with 251 up to 500 employees (figure 6.5). Subsidiaries age range from less than 10 years up to 40 years, the most common group was 10 to 19 years 40.8%, and the least common group was 30 to 40 years 10% (figure 6.6). When we ask the participants about the culture of the subsidiaries they work for, the results showed that 39.3% of our sample are Adhocracy – dynamic and entrepreneurial subsidiaries, 32.6% hierarchical subsidiaries, and 28.1% are market orientated (figure 6.7). According to table 6.2, the subsidiaries are located in 16 different countries, the two largest percentage of subsidiaries are located in UK (35.6%) and USA (19.3%) (figure 6.8).

FIGURE 6. 5: SUBSIDIARY SIZE DISTRIBUTION



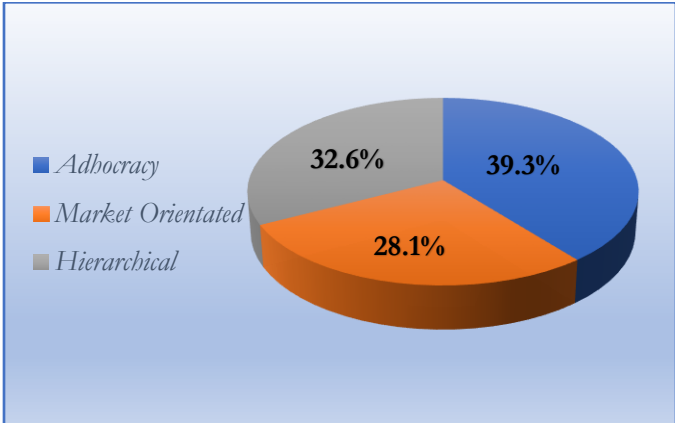
Source: The researcher

FIGURE 6. 6: SUBSIDIARY AGE DISTRIBUTION



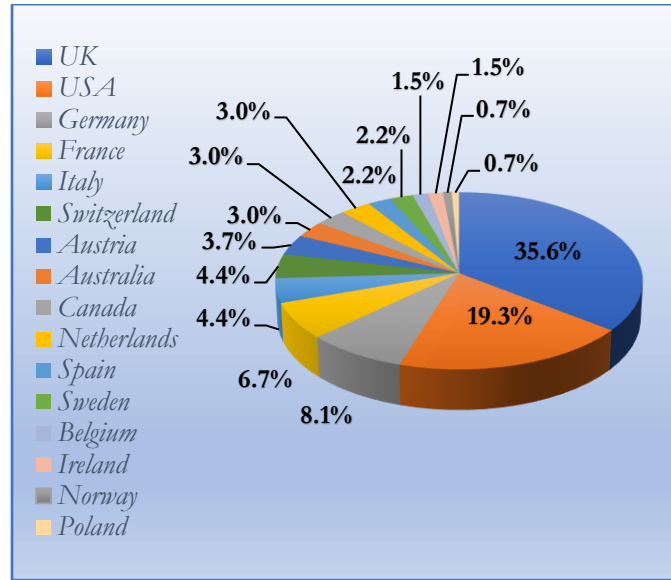
Source: The researcher

FIGURE 6. 7: SUBSIDIARY CULTURE DISTRIBUTION



Source: The researcher

FIGURE 6. 8: SUBSIDIARY LOCATION DISTRIBUTION



Source: The researcher

Now, further discussion will describe more on the responses from participants according to the research instrument. Table 6.3 illustrates the descriptive statistics of instruments in terms of mean, and standard deviation of the 7-point Likert scale for each indicator. Detailed descriptive statistics of the instrument will be reported in appendices.

TABLE 6. 3: DESCRIPTIVE STATISTICS OF THE INSTRUMENT

Construct	Indicator	Statement	Mean	SD
Willingness to Share Knowledge	WSK1	Subsidiaries enjoy sharing their knowledge with their headquarter	4.29	0.95
	WSK2	subsidiaries seek out opportunities to share knowledge with their headquarters	4.28	0.94
	WSK3	Subsidiaries feel happy sharing their specialist knowledge with their headquarters	4.12	1.00
	WSK4	Subsidiaries have unique knowledge or expertise to share	5.44	1.13
	WSK5	Subsidiaries willingly share knowledge with others without being asked	3.64	1.33

Construct	Indicator	Statement	Mean	SD
	WSK6	Subsidiaries do not share knowledge because they fear it would erode their strategic independence	4.21	1.46
Social Equity	SE1	Employee are rewarded for sharing knowledge	3.81	1.23
	SE2	Our organization benefits from knowledge sharing	5.52	1.09
	SE3	Employees feel closer to our organization when we share our expertise	5.50	1.01
	SE4	Employees build social equity with their international colleagues by sharing knowledge	5.51	1.06
	SE5	Employees build reciprocal commitment with their international colleagues by sharing knowledge	5.50	1.08
Trust	Tr1	Employees feel safe sharing knowledge with colleagues	5.68	1.12
	Tr2	Sharing knowledge make Employees feel included	5.70	1.13
	Tr3	Sharing knowledge make Employees feel they are part of the organization's community	5.70	1.07
	Tr4	Employees are recognized for sharing their knowledge	5.73	1.09
	Tr5	Employees knows that they will receive credit / recognition from their line manager for sharing ideas	4.96	1.06
	Tr6	Sharing knowledge builds benevolent trust between the subsidiary and the parent	5.73	1.04
Value	Val1	Employees know that their knowledge has value	4.41	1.24
	Val2	employee's knowledge is treated as valuable by the organization	5.03	1.40
	Val3	Employees have knowledge unique to our organization which is important to our success	5.14	1.29

Construct	Indicator	Statement	Mean	SD
	Val4	It is important to collect / codify knowledge in our organization	5.15	1.21
	Val5	As an organization we know the value of our local knowledge	5.10	1.32
	Val6	As an organization we actively share knowledge/innovations from subsidiaries	5.10	1.20
Mechanisms of Knowledge Transfer: Our organization supports knowledge transfer by	MKT1	Actively encouraging staff to share knowledge	4.70	1.07
	MKT2	Documenting or capturing knowledge	4.73	1.05
	MKT3	Codifying and sharing knowledge	4.75	0.98
	MKT4	Updating practices and policies with new knowledge	4.45	1.10
	MKT5	Sharing the benefits of knowledge with examples	4.41	1.10
	MKT6	Rewarding staff who share knowledge	3.69	1.23
Senior Employees Sharing Knowledge	ESK1	Company visits from the parent to the subsidiary	5.50	0.98
	ESK2	Creating international / cross-cultural project teams	3.91	1.10
	ESK3	Encouraging and supporting international assignments	3.87	1.16
	ESK4	Facilitating visits by subsidiaries to the parent	3.98	1.15
	ESK5	Facilitating visits between subsidiaries	3.97	1.07
	ESK6	Creating international training opportunities	5.42	1.13
	ESK7	Through Information Communication technologies	5.54	1.08
Characteristics of Knowledge Transferred - our subsidiaries has knowledge which is	CKT1	Easily captured and documented in a consistent format (explicit)	4.73	1.27
	CKT2	Easily communicated and shared (explicit)	4.81	1.24
	CKT3	Novel or innovative and distinguishes us from our direct competitors (tacit)	4.33	1.21
	CKT4	A source of value to our customers (explicit)	4.69	1.32
	CKT5	Built upon unique employee knowledge or experience (tacit)	4.41	1.32

Construct	Indicator	Statement	Mean	SD
	CKT6	Non-replicable as it is the outcome of interlaced processes and procedures (tacit)	4.41	1.03
Pace or Speed of Knowledge Transfer	SKT1	The new technology in which was transferred from your subsidiary was very fast	5.23	0.97
	SKT2	The new technology was transferred from your subsidiary in a timely fashion	5.10	1.01
	SKT3	It took our company a short time to acquire and implement the technology provided by our subsidiary	5.11	1.10
	SKT4	The subsidiary is highly motivated to share new knowledge promptly	5.10	1.03
	SKT5	Organisational processes make it easy to share knowledge quickly	4.96	1.09
	SKT6	The subsidiary knows why it is important to share knowledge quickly	4.95	1.20
Power	Pow1	Subsidiaries share knowledge freely and are not compelled to do so	5.02	1.29
	Pow2	Knowledge is used as a moderate source of power by some in the organisation	5.10	1.22
	Pow3	Knowledge is used as a source of power in exchange for resources in negotiations	5.25	1.13
	Pow4	Some employees withhold their tacit knowledge to protect their position	2.93	1.29
	Pow5	Some employees partially withhold knowledge by omission to protect their position	2.98	1.23
Type of Knowledge Shared	TKS1	Technological expertise	4.07	1.24
	TKS2	Manufacturing processes	4.17	1.25
	TKS3	Design and development (software)	4.05	1.17
	TKS4	Product development	4.05	1.16

Construct	Indicator	Statement	Mean	SD
	TKS5	Marketing and branding	4.13	1.14
	TKS6	Cultural norms and practices	4.07	1.17
Motivation	Mot1	To adapt the existing subsidiaries knowledge to suit the GCC Market	5.76	0.95
	Mot2	To develop new knowledge with your subsidiaries as part of global innovation program	5.77	0.96
	Mot3	To exchange complementary technology with your subsidiaries	5.84	0.95
	Mot4	To produce your company's established product range for the GCC market	5.79	1.03
	Mot5	To develop and produce products that are new to the GCC market	5.74	1.02
	Mot6	To help the parent company communicate more effectively	5.78	1.03
	Mot7	To help the parent form a community of practice	5.78	1.11
Evidence of Knowledge Utilization - on the basis of knowledge transferred from a subsidiary, the parent company has:	EKU1	Changed standard processes	5.22	1.05
	EKU2	Instigated market research	5.15	0.98
	EKU3	Retrained employees	5.15	0.98
	EKU4	Updated company procedures	5.22	0.93
	EKU5	Switched to a new supplier	5.22	0.98
	EKU6	Won more business from a customer	5.22	1.03
Action of the Basis of Knowledge - on the basis of knowledge transferred from a subsidiary, the	ABK1	Discussed how knowledge could be used and applied	4.94	1.08
	ABK2	Recognised that knowledge may need to be adapted for a local market	4.89	1.14
	ABK3	Invested in new equipment or staff to disseminate knowledge	4.94	1.11

Construct	Indicator	Statement	Mean	SD
parent company has:	ABK4	Invested in further R&D to explore new opportunities	5.00	1.07
	ABK5	Restructured parts of the organisation to exploit new knowledge	4.99	1.08
	ABK6	Introduced new products and services which are unique to the parent company's market	5.10	0.99
Similarities between Parent and Subsidiary - The parent and subsidiaries have:	SPS1	Genuinely shared values	4.75	1.04
	SPS2	Similar or comparable business practices	4.74	0.94
	SPS3	A sense of shared history and culture	4.80	0.98
	SPS4	A shared or similar view of "how business is done"	4.79	1.05
	SPS5	A similar positioning in their respective markets (e.g. premium, mid-range)	4.82	1.00

Source: The researcher

- **Willingness to Share Knowledge:** The results showed small differences between the mean value of all indicators, except for WSK 4 "Subsidiaries have unique knowledge or expertise to share" with mean 5.44 and WKS 5 "Subsidiaries willingly share knowledge with others without being asked" with mean 3.64. This result implies that the participants agree that the subsidiaries have a unique knowledge to share, however they are neutral about the willingness of subsidiaries to share knowledge without being asked.

FIGURE 6. 9: WILLINGNESS TO SHARE KNOWLEDGE



Source: The researcher

- **Social Equity:** The first indicator in this construct “Employee are rewarded for sharing knowledge” get the lowest mean value among all other indicators (3.81). This could mean that there is no consensus among the participants regarding employee’s reward for sharing knowledge.

FIGURE 6. 10: SOCIAL EQUITY



Source: The researcher

- **Trust:** The mean value varies from 4.96 to 5.73 for trust indicators, which implies that the participants are feeling safe, included, and recognized in the organization when sharing knowledge.

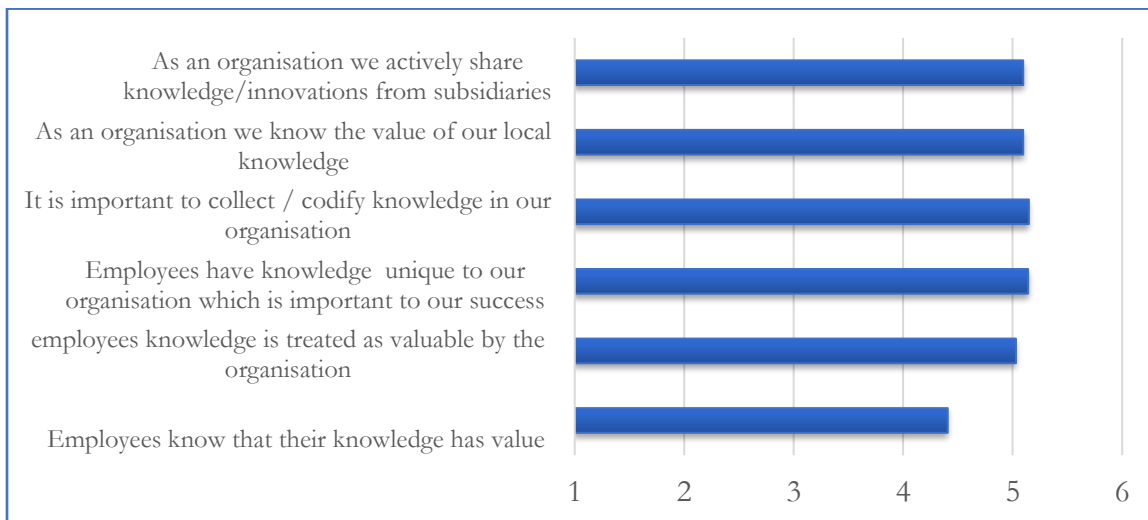
FIGURE 6. 11: TRUST



Source: The researcher

- **Value:** The mean of 5 out of 6 indicators for value construct is greater than 5, which gives us a sign that the participants somewhat agree with knowledge value, and the importance of collecting, codifying and sharing knowledge in the success of their organization.

FIGURE 6. 12: VALUE



Source: The researcher

- **Mechanisms of Knowledge Transfer:** The result shows that the participants somewhat agree that their organization supports knowledge transfer through a variety of mechanisms.

However, they were neutral about that their organization uses staff rewards as a mechanism to stimulate knowledge sharing.

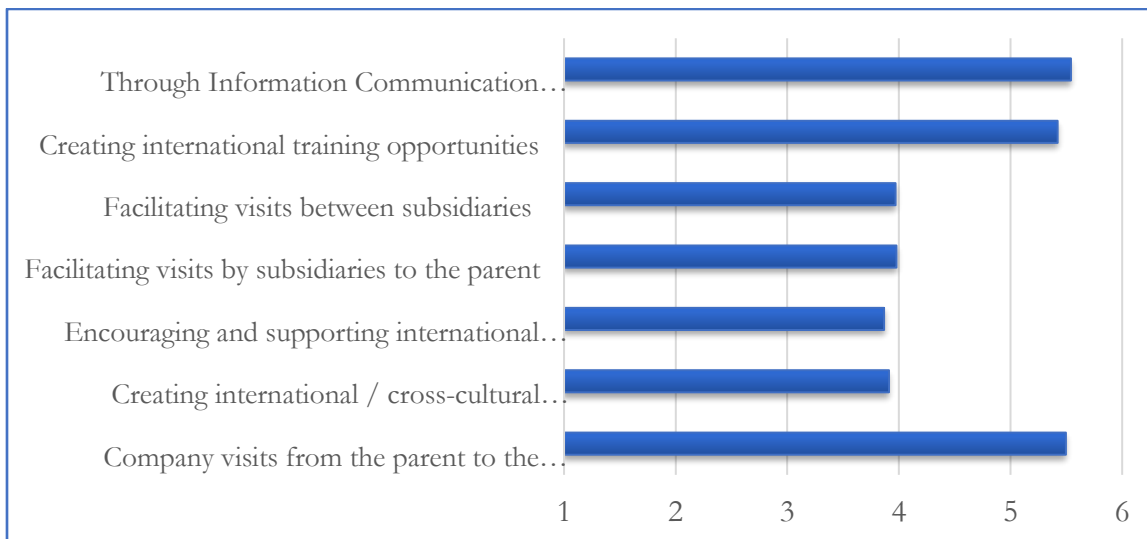
FIGURE 6. 13: MECHANISMS OF KNOWLEDGE TRANSFER



Source: The researcher

- **Senior Employees Sharing Knowledge:** The participants agree that senior employees sharing knowledge through visits from parent to subsidiaries, international training, and communication technologies.

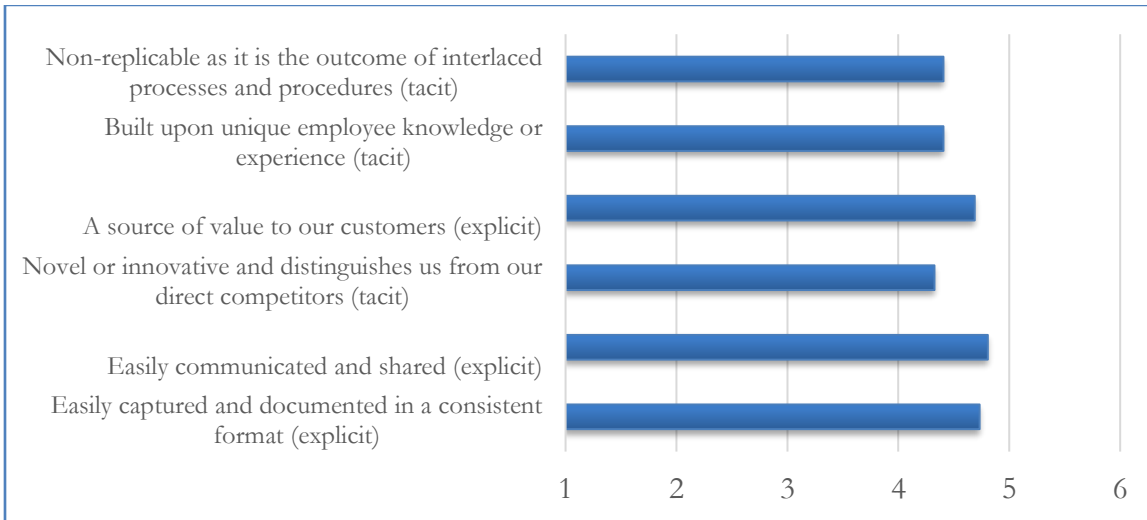
FIGURE 6. 14: SENIOR EMPLOYEES SHARING KNOWLEDGE



Source: The researcher

- **Characteristics of Knowledge Transferred:** Regarding the characteristics of knowledge shared, the participants somewhat agree that the knowledge transferred is a source of value to their customers and it is easily communicated and shared. However, they were neutral about the novelty and non-replicability of the knowledge transferred from subsidiaries.

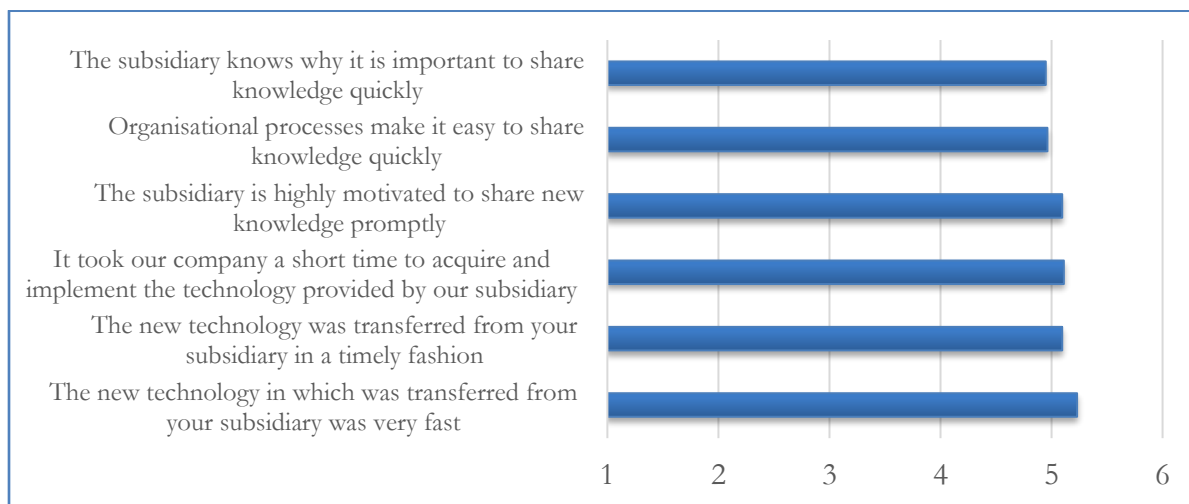
FIGURE 6. 15: CHARACTERISTICS OF KNOWLEDGE TRANSFERRED



Source: The researcher

- **Pace or Speed of Knowledge Transfer:** The mean value varies from 4.95 to 5.23 for all indicators, which implies that the participants somewhat agree that knowledge is easily and quickly transferred from subsidiaries to its parent.

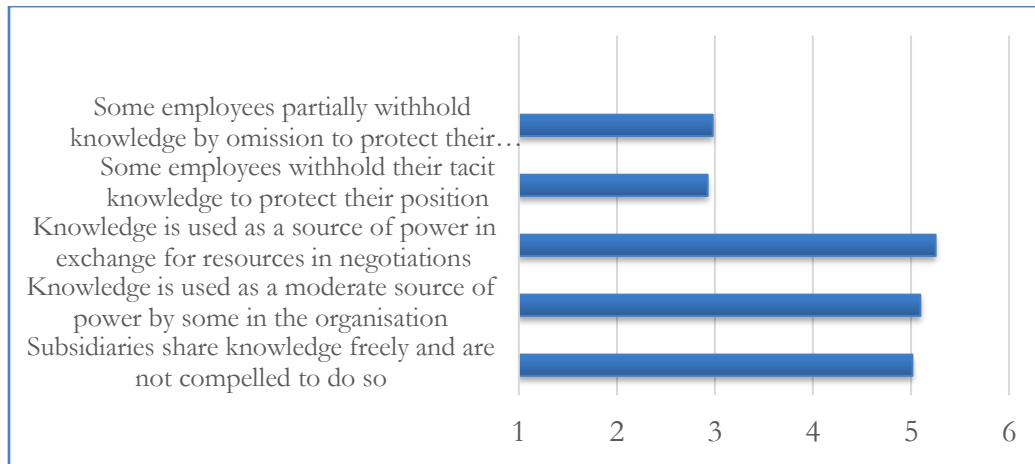
FIGURE 6. 16: PACE OR SPEED OF KNOWLEDGE TRANSFER



Source: the researcher

- **Power:** The indicators of this construct could be classified into two groups according to participant's responses, the participants somewhat agree with the usage of knowledge as a source of power, and that subsidiaries share knowledge freely, and they are not compelled to do so. On the other hand, the participants somewhat disagree with the usage of knowledge by employees in order to protect their position.

FIGURE 6. 17: POWER



Source: The researcher

- **Type of Knowledge shared:** The result showed small differences between the mean value of all indicators with a mean range from 4.05 to 4.17. This result implies that the participants were neutral about the type of knowledge share from subsidiaries to its parent.

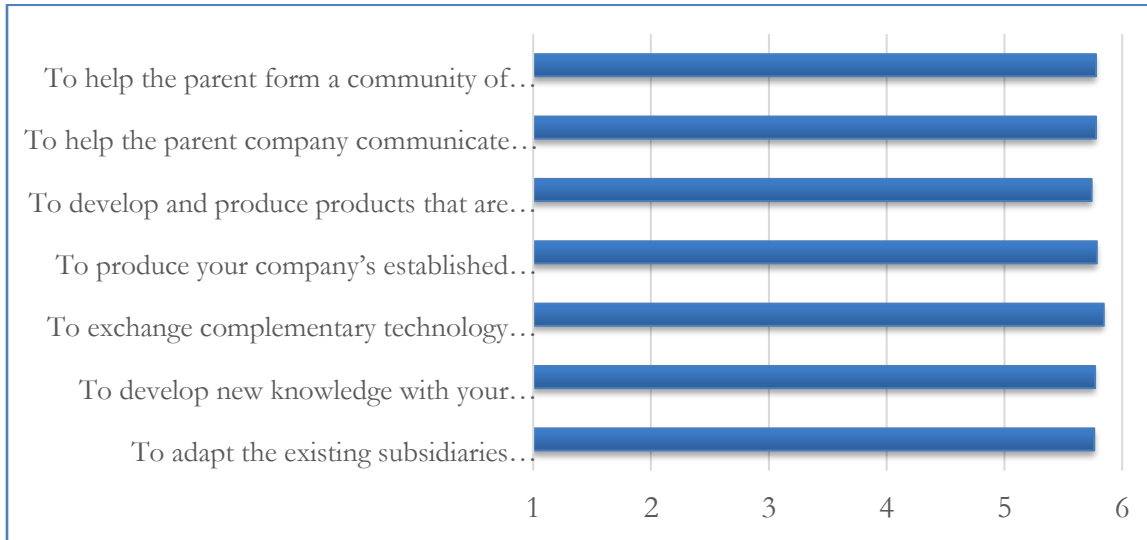
FIGURE 6. 18: TYPE OF KNOWLEDGE SHARED



Source: The researcher

- **Motivation:** When they asked about the motivation which influences their decision to receive reverse knowledge from subsidiaries, the responses of participants showed small differences between the mean value of all indicators with mean ranges from 5.74 to 5.84.

FIGURE 6. 19: MOTIVATION



Source: The researcher

- **Evidence of Knowledge Utilization:** The result showed small differences between the mean value of all indicators with a mean range from 5.15 to 5.22. This result implies that the participants somewhat agree that there is evidence of knowledge.

FIGURE 6. 20: EVIDENCE OF KNOWLEDGE UTILIZATION

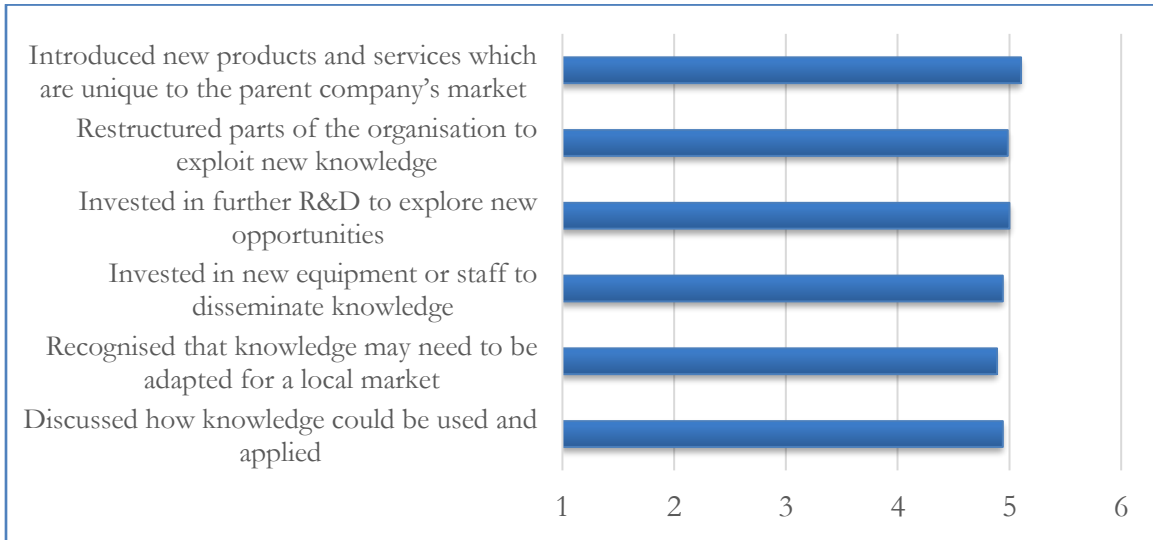


Source: The researcher

- **Action of the Basis of Knowledge:** When they asked about the actions taken by parent organization on the basis of knowledge transferred from subsidiaries, the responses of

participants showed small differences between the mean value of all indicators with mean ranges from 4.89 to 5.1.

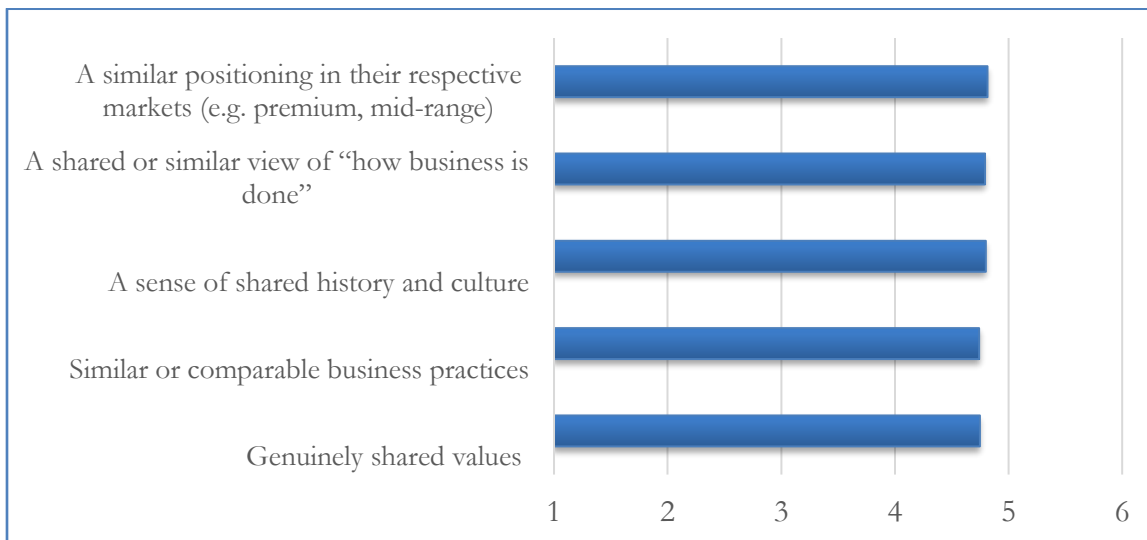
FIGURE 6. 21: ACTION OF THE BASIS OF KNOWLEDGE



Source: The researcher

- **Similarities between Parent and Subsidiary:** The result showed small differences between the mean value of all indicators with a mean range from 4.74 to 4.82. This result implies that the participants somewhat agree that there is similarities between parent and subsidiaries.

FIGURE 6. 22: SIMILARITIES BETWEEN PARENT AND SUBSIDIARY



Source: The researcher

6-4 Data examination

According to data examination is important step in data analysis for ensuring that the data underlying the analysis meet the entire requirement of the multivariate data analysis technique Hair et al. (2006). By examining the data before performing the multivariate data analysis, researchers will gain a deeper understanding of the characteristics of the data. The frequency tables were first tabulated in order to check whether any mistake had occurred during the insertion of the codes into the SPSS data sheet, followed by an examination of the descriptive statistics for all variables of interest.

However, multivariate analysis techniques require complex assumptions. Hair et al. (2006) suggest that a set of data examination techniques, for example, missing data analysis, the detection of outliers and testing the normality assumption, should be assessed. Therefore, in order to ensure that the required data assumptions for performing multivariate analysis were met, the researcher also examined the characteristics of the data, including: 1) missing data analysis; 2) outlier analysis; 3) normality analysis; 4) homoscedasticity assessment; 5) and 6) common method bias assessment. In the next sections, the examinations of the data are presented.

6-4-1 Missing Data Analysis:

Survey-based research is a well-established and commonly employed category of research study design by researchers in many fields. This is due to time and other constraints and attempts to collect data that is random and representative of the characteristics of the population under investigation. However, researchers almost have no control over the occurrence of missing data, which was found to occur quite commonly in survey-based research studies (Karanja et al. 2013). Missing data refers to those values that have not been collected or reported by the respondent for one reason or another in a particular study.

Missing data causes many problems in statistical analysis procedures. For instance, reducing sample size because of missing data reduces statistical power, which implies that, estimations calculated can be biased to generalize (Corderio et al., 2010). Within multivariate, similar problems of missing data analysis are also warned by Hair et al., (2006) who state that, if solutions of missing data are not applied properly, reduction in sample produces inadequate sample for complete analysis; in addition, empirical results obtained through data containing non-random missing data could be biased and leads to erroneous results.

Overcoming the sever problems of missing data, Hair et al., (2006) prescribed four steps to follow:

- 1- examine the type of missing data,
- 2- examine the extent of missing data,
- 3- examine the randomness of missing data
- 4- apply the remedies e.g. imputation method.

To minimize the chances of having missing values, in this study, researcher did not include any item in survey instrument which required to be un-answered by the respondents, hence, there was no chance of ignorable missing data occurrences. After data collection, coding, and checking the data for missing values, only five missing values were identified in the demographic variables, and fortunately, no missing data was found in any item in the study instrument.

6-2-2 Outliers Analysis:

Outliers are those values that are usually represented by extremely large or extremely small values compared to the other data in the set. It is observation(s) which is distinct from other observations due to high or low scores (Hair et al., 2006). In general, the existence of outliers could negatively affect the analysis; however, in other cases, the outliers could provide useful information about data (Seo 2006).

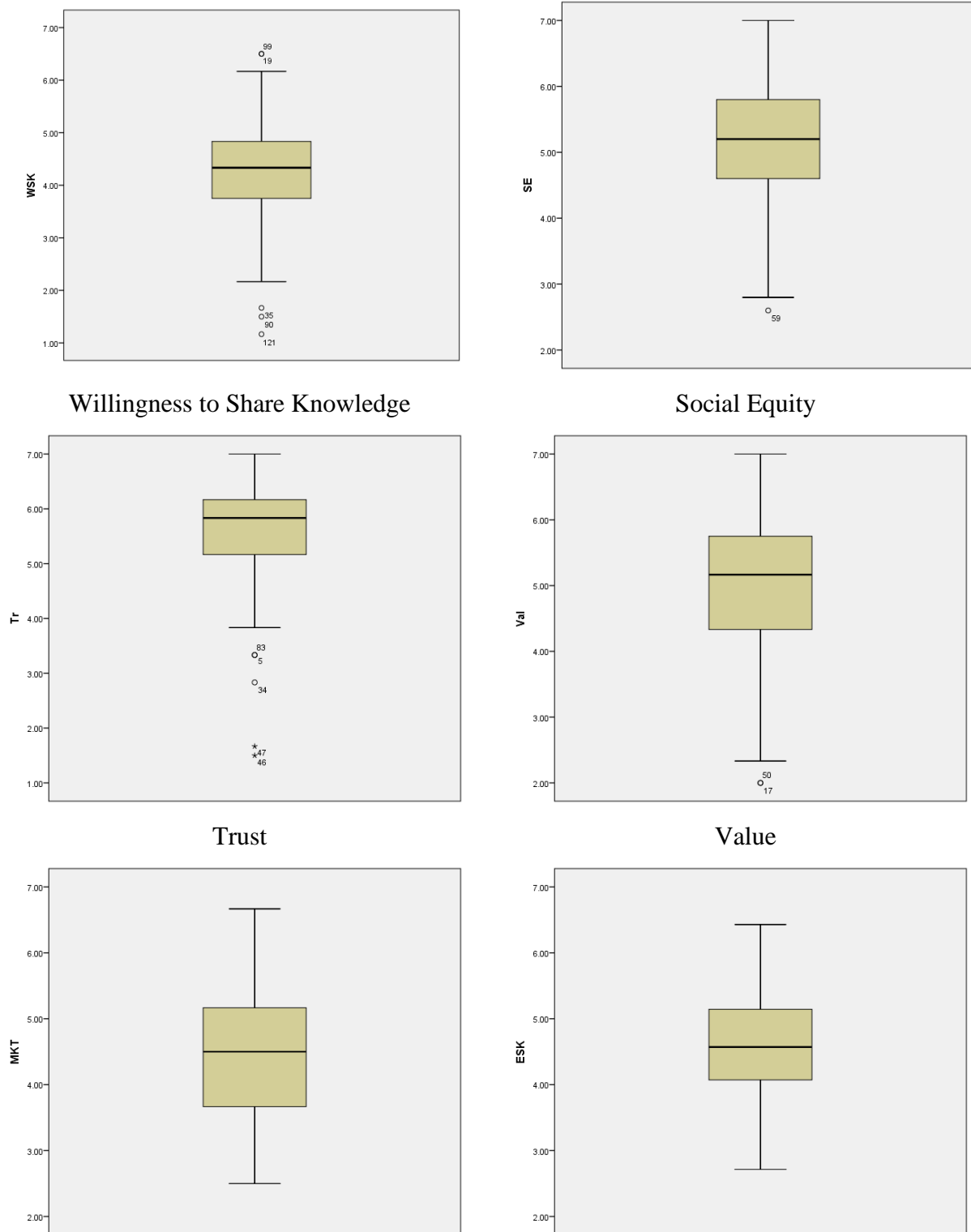
To test the existing outliers in the data, and in line with Field (2009), the researcher detected outliers by examining box-whisker diagrams. As a result, few outliers were found in 7 out 14 constructs in this study (See figure 6.27: Outliers Analysis (Box-Whisker Diagram below).

According to Hair et al. (2010), the outliers should be deleted because they are considered non-representative of any observations in the population. Nevertheless, the researcher decided not to remove the outliers due to the following reasons:

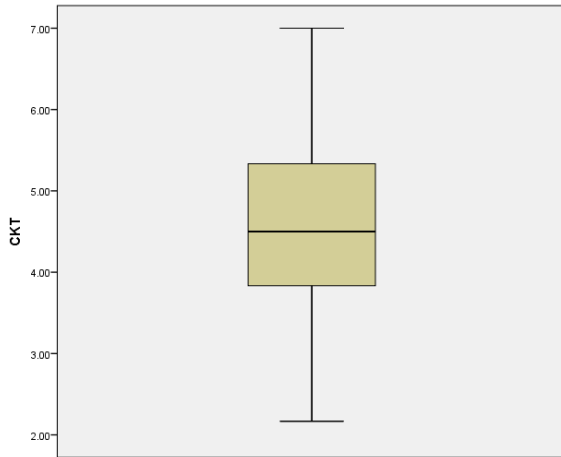
- 1- The retention of the outliers is a way “to ensure generalizability to the entire population” Hair et al., (2010).
- 2- one must be cautious before deleting outliers as in some cases they are regarded as information rich and reflect part of / provide explanation to the phenomenon.
- 3- Our sample is relatively a small sample. Thus, it would not be appropriate to delete the whole record and reduce the sample size,

4- only few numbers of outliers were found.

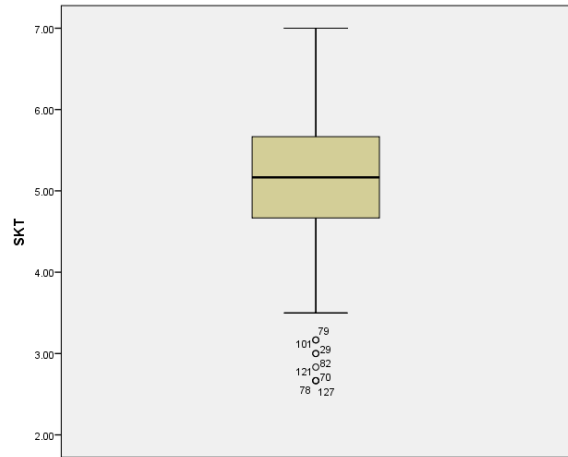
FIGURE 6. 23: OUTLIERS ANALYSIS (BOX-WHISKER DIAGRAM)



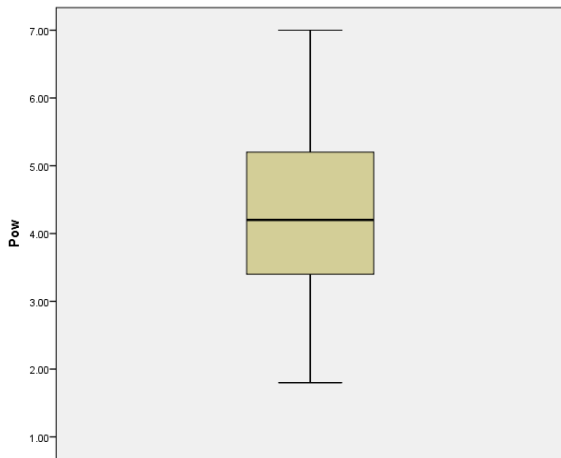
Mechanisms of Knowledge Transfer



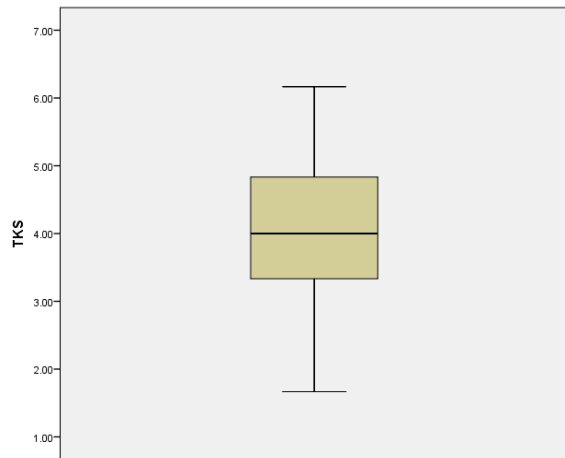
Senior Employees Sharing Knowledge



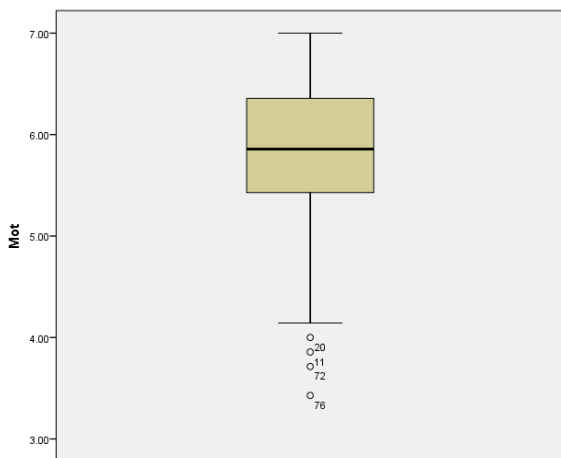
Characteristics of Knowledge Transferred



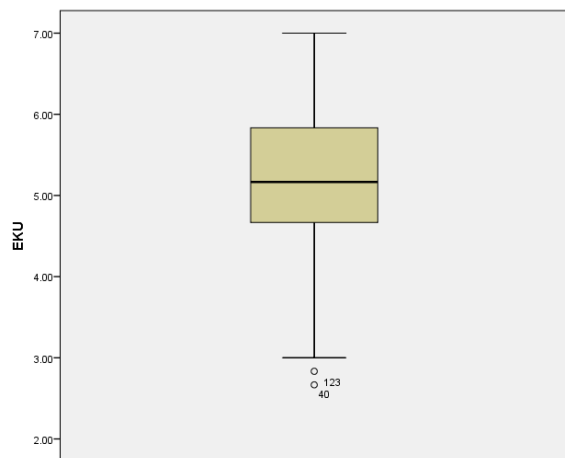
Pace or Speed of Knowledge Transfer



Power

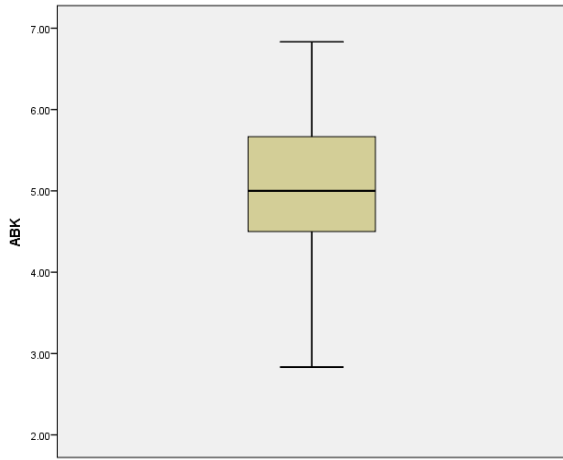


Type of Knowledge Shared

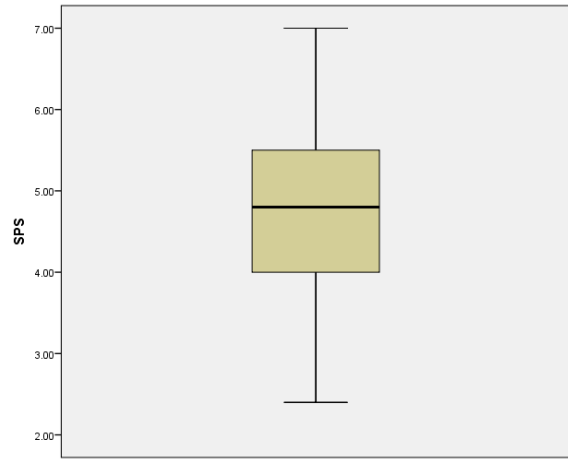


Motivation

Evidence of Knowledge Utilization



Action of the Basis of Knowledge



Similarities between Parent and Subsidiary

Source: The researcher

6-4-2 Normality Analysis:

According to Hair et al., (2006), the normality is considered to be fundamental assumption in multivariate analysis. Normality is characterized by the assumption that the data distribution in each item and in all linear combination of items is normally distributed Hair et al., (2006). In this study we used two methods to examine the normality. The first method is graphical method in which, normality is checked by inspecting the histogram of variable, which requires being symmetrical, bell-shaped curve and has higher frequency of scores in middle and lower on peaks (Pallant,2007). Another graphical method for assessing normality, also considered to be an easier method compared to the others is Q-Q plot (also known normal probability plot). The Q-Q plot displays graph between observed values and expected values. Within Q-Q plot if the points within graph are clustered around a straight line than it represents variable is normally distributed (Field, 2009).

The other method used to identify the shape of distribution is skewness and kurtosis. Whereas, skewness portrays the symmetry of distribution and kurtosis refers to the ‘peakedness’ or the ‘flatness’ of distribution compared to the normal distribution (Hair et al., 2006). On the basis of both graphical assessments, and the skewness and kurtosis measurement, it was found that the variables were likely to depart from a normal distribution because the skewness and kurtosis values were not zero (See Table 6.4: Descriptive statistics). However, we should note that “it is unlikely that the statistical assumptions will ever be met in a strict sense” (Bagozzi & Yi, 1988) in managerial and social science researches. According to Hair et al. (2006), the values of the almost all skewness and kurtosis of indicators in this research were in the acceptable range of ± 3 . Additionally, by examining Mardia’s (1970) coefficient of the relative multivariate kurtosis indicator provided by PRELIS (Jöreskog & Sörbom, 2001), it was found that the data had an acceptable level of multivariate normality (coefficient = 0.994, see Table 6.5: Test of univariate normality and multivariate). As a result, it was safe to assume that the assumption of multivariate normality was met.

TABLE 6. 4: DESCRIPTIVE STATISTICS

Indicator	Min.	Max.	Median	Mean	Standard Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
WSK1	1	6	4	4.289	0.953	-0.033	0.209	0.709	0.414
WSK2	1	6	4	4.281	0.944	-0.268	0.209	1.047	0.414
WSK3	1	7	4	4.119	1	-0.151	0.209	1.530	0.414
WSK4	1	7	5	5.437	1.13	-1.147	0.209	3.042	0.414
WSK5	1	7	4	3.644	1.33	0.003	0.209	-0.100	0.414
WSK6	1	7	4	4.207	1.456	-0.147	0.209	-0.254	0.414
SE1	1	7	4	3.807	1.225	-0.045	0.209	0.001	0.414
SE2	1	7	6	5.519	1.085	-0.618	0.209	0.931	0.414
SE3	3	7	6	5.496	1.014	-0.339	0.209	-0.559	0.414
SE4	2	7	6	5.511	1.064	-0.652	0.209	0.559	0.414
SE5	2	7	6	5.504	1.078	-0.463	0.209	-0.281	0.414
Tr1	1	7	6	5.681	1.117	-1.883	0.209	5.443	0.414
Tr2	1	7	6	5.696	1.128	-1.846	0.209	5.134	0.414
Tr3	1	7	6	5.704	1.073	-1.519	0.209	4.188	0.414
Tr4	1	7	6	5.733	1.087	-1.678	0.209	4.706	0.414
Tr5	1	7	5	4.956	1.064	-0.552	0.209	1.768	0.414
Tr6	1	7	6	5.733	1.038	-1.679	0.209	5.207	0.414
Val1	1	7	5	4.407	1.242	-0.533	0.209	0.080	0.414
Val2	1	7	5	5.03	1.398	-0.885	0.209	0.386	0.414
Val3	1	7	5	5.141	1.294	-0.875	0.209	0.789	0.414
Val4	1	7	5	5.148	1.213	-0.697	0.209	0.163	0.414
Val5	2	7	5	5.096	1.315	-0.380	0.209	-0.626	0.414
Val6	1	7	5	5.096	1.202	-0.894	0.209	0.737	0.414
MKT1	2	7	5	4.696	1.067	-0.001	0.209	-0.641	0.414
MKT2	3	7	5	4.726	1.047	-0.023	0.209	-1.027	0.414
MKT3	2	7	5	4.748	0.975	-0.062	0.209	-0.520	0.414

Indicator	Min.	Max.	Median	Mean	Standard Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
MKT4	3	7	4	4.452	1.104	0.208	0.209	-0.916	0.414
MKT5	3	7	4	4.407	1.102	0.392	0.209	-0.701	0.414
MKT6	1	7	4	3.689	1.231	0.250	0.209	-0.232	0.414
ESK1	2	7	6	5.496	0.976	-0.356	0.209	0.047	0.414
ESK2	1	7	4	3.911	1.096	0.144	0.209	0.217	0.414
ESK3	1	6	4	3.867	1.164	-0.139	0.209	-0.395	0.414
ESK4	2	7	4	3.978	1.149	0.194	0.209	-0.168	0.414
ESK5	1	6	4	3.97	1.072	-0.051	0.209	-0.108	0.414
ESK6	1	7	6	5.422	1.129	-1.397	0.209	3.496	0.414
ESK7	1	7	6	5.541	1.084	-1.105	0.209	2.958	0.414
CKT1	2	7	5	4.733	1.265	-0.247	0.209	-0.466	0.414
CKT2	1	7	5	4.807	1.243	-0.479	0.209	-0.006	0.414
CKT3	1	7	4	4.326	1.208	0.198	0.209	0.138	0.414
CKT4	1	7	5	4.689	1.324	-0.446	0.209	-0.387	0.414
CKT5	1	7	4	4.407	1.317	-0.034	0.209	0.011	0.414
CKT6	2	7	4	4.407	1.032	0.687	0.209	0.412	0.414
SKT1	3	7	5	5.23	0.969	-0.477	0.209	0.128	0.414
SKT2	3	7	5	5.096	1.007	-0.240	0.209	-0.255	0.414
SKT3	2	7	5	5.111	1.097	-0.223	0.209	-0.224	0.414
SKT4	2	7	5	5.096	1.029	-0.488	0.209	0.489	0.414
SKT5	1	7	5	4.963	1.089	-0.630	0.209	0.653	0.414
SKT6	1	7	5	4.948	1.199	-0.796	0.209	1.223	0.414
Pow1	1	7	5	5.015	1.293	-0.575	0.209	0.064	0.414
Pow2	1	7	5	5.096	1.221	-0.336	0.209	-0.269	0.414
Pow3	2	7	5	5.252	1.131	-0.291	0.209	-0.597	0.414
Pow4	1	7	3	2.926	1.285	0.590	0.209	0.331	0.414
Pow5	1	7	3	2.978	1.231	0.652	0.209	0.650	0.414

Indicator	Min.	Max.	Median	Mean	Standard Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
TKS1	1	7	4	4.067	1.235	0.089	0.209	-0.527	0.414
TKS2	1	7	4	4.17	1.249	-0.072	0.209	-0.654	0.414
TKS3	2	7	4	4.052	1.174	0.039	0.209	-0.798	0.414
TKS4	1	7	4	4.052	1.155	0.045	0.209	-0.248	0.414
TKS5	2	7	4	4.133	1.138	-0.019	0.209	-0.765	0.414
TKS6	1	7	4	4.067	1.173	-0.131	0.209	-0.614	0.414
Mot1	3	7	6	5.763	0.948	-0.841	0.209	0.733	0.414
Mot2	3	7	6	5.77	0.962	-0.699	0.209	0.037	0.414
Mot3	3	7	6	5.844	0.945	-0.705	0.209	0.183	0.414
Mot4	3	7	6	5.785	1.025	-0.780	0.209	-0.010	0.414
Mot5	3	7	6	5.741	1.022	-0.865	0.209	0.207	0.414
Mot6	3	7	6	5.778	1.027	-0.799	0.209	-0.008	0.414
Mot7	2	7	6	5.778	1.111	-0.941	0.209	0.476	0.414
EKU1	1	7	5	5.215	1.054	-0.519	0.209	1.126	0.414
EKU2	3	7	5	5.148	0.981	-0.255	0.209	-0.225	0.414
EKU3	3	7	5	5.148	0.981	-0.255	0.209	-0.225	0.414
EKU4	3	7	5	5.222	0.928	-0.288	0.209	-0.219	0.414
EKU5	3	7	5	5.222	0.982	-0.605	0.209	0.020	0.414
EKU6	1	7	5	5.215	1.032	-0.732	0.209	1.198	0.414
ABK1	2	7	5	4.941	1.077	-0.135	0.209	-0.337	0.414
ABK2	3	7	5	4.889	1.137	0.036	0.209	-0.618	0.414
ABK3	2	7	5	4.941	1.105	-0.117	0.209	-0.052	0.414
ABK4	3	7	5	5	1.072	0.037	0.209	-0.386	0.414
ABK5	2	7	5	4.985	1.079	-0.260	0.209	-0.250	0.414
ABK6	3	7	5	5.104	0.987	-0.116	0.209	-0.423	0.414
SPS1	1	7	5	4.748	1.035	-0.133	0.209	0.727	0.414
SPS2	3	7	5	4.741	0.938	0.487	0.209	0.095	0.414

Indicator	Min.	Max.	Median	Mean	Standard Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
SPS3	3	7	5	4.8	0.976	0.413	0.209	-0.394	0.414
SPS4	2	7	5	4.793	1.052	0.035	0.209	-0.618	0.414
SPS5	3	7	5	4.815	1.001	0.109	0.209	-0.445	0.414

Source: The researcher

TABLE 6. 5: TEST OF UNIVARIATE NORMALITY AND MULTIVARIATE

Indicator	Skewness		Kurtosis		Skewness and Kurtosis	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
WSK1	-0.162	0.872	1.558	0.119	2.455	0.293
WSK2	-1.302	0.193	2.03	0.042	5.815	0.055
WSK3	-0.738	0.461	2.58	0.01	7.2	0.027
WSK4	-4.7	0	3.752	0	36.169	0
WSK5	0.013	0.99	-0.092	0.927	0.009	0.996
WSK6	-0.722	0.471	-0.549	0.583	0.822	0.663
SE1	-0.221	0.825	0.172	0.864	0.079	0.962
SE2	-2.84	0.005	1.879	0.06	11.593	0.003
SE3	-1.629	0.103	-1.712	0.087	5.585	0.061
SE4	-2.976	0.003	1.318	0.188	10.593	0.005
SE5	-2.188	0.029	-0.636	0.525	5.192	0.075
Tr1	-6.556	0	4.83	0	66.309	0
Tr2	-6.476	0	4.721	0	64.236	0
Tr3	-5.722	0	4.342	0	51.593	0
Tr4	-6.104	0	4.559	0	58.04	0
Tr5	-2.567	0.01	2.81	0.005	14.488	0.001
Tr6	-6.105	0	4.748	0	59.812	0
Val1	-2.487	0.013	0.366	0.714	6.322	0.042
Val2	-3.847	0	1.01	0.313	15.823	0
Val3	-3.81	0	1.678	0.093	17.333	0
Val4	-3.153	0.002	0.555	0.579	10.248	0.006
Val5	-1.818	0.069	-2.03	0.042	7.425	0.024
Val6	-3.877	0	1.6	0.11	17.588	0
MKT1	-0.007	0.994	-2.104	0.035	4.425	0.109
MKT2	-0.113	0.91	-4.895	0	23.969	0
MKT3	-0.304	0.761	-1.537	0.124	2.454	0.293
MKT4	1.015	0.31	-3.872	0	16.019	0

Indicator	Skewness		Kurtosis		Skewness and Kurtosis	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
MKT5	1.872	0.061	-2.423	0.015	9.376	0.009
MKT6	1.214	0.225	-0.482	0.63	1.707	0.426
ESK1	-1.707	0.088	0.287	0.774	2.997	0.223
ESK2	0.705	0.481	0.673	0.501	0.951	0.622
ESK3	-0.684	0.494	-1.037	0.3	1.542	0.463
ESK4	0.946	0.344	-0.287	0.774	0.977	0.613
ESK5	-0.252	0.801	-0.116	0.908	0.077	0.962
ESK6	-5.407	0	4.007	0	45.287	0
ESK7	-4.57	0	3.701	0	34.582	0
CKT1	-1.2	0.23	-1.313	0.189	3.162	0.206
CKT2	-2.258	0.024	0.155	0.877	5.122	0.077
CKT3	0.965	0.335	0.499	0.618	1.179	0.555
CKT4	-2.113	0.035	-1.005	0.315	5.474	0.065
CKT5	-0.17	0.865	0.197	0.844	0.068	0.967
CKT6	3.116	0.002	1.059	0.29	10.828	0.004
SKT1	-2.249	0.024	0.478	0.633	5.288	0.071
SKT2	-1.169	0.243	-0.555	0.579	1.674	0.433
SKT3	-1.089	0.276	-0.455	0.649	1.392	0.499
SKT4	-2.296	0.022	1.198	0.231	6.705	0.035
SKT5	-2.89	0.004	1.471	0.141	10.514	0.005
SKT6	-3.526	0	2.245	0.025	17.472	0
Pow1	-2.663	0.008	0.329	0.742	7.201	0.027
Pow2	-1.619	0.105	-0.599	0.549	2.98	0.225
Pow3	-1.41	0.158	-1.888	0.059	5.555	0.062
Pow4	2.726	0.006	0.905	0.365	8.249	0.016
Pow5	2.979	0.003	1.466	0.143	11.022	0.004
TKS1	0.436	0.663	-1.568	0.117	2.649	0.266
TKS2	-0.354	0.723	-2.173	0.03	4.849	0.089

Indicator	Skewness		Kurtosis		Skewness and Kurtosis	
	Z-Score	P-Value	Z-Score	P-Value	Chi-Square	P-Value
TKS3	0.19	0.849	-3.011	0.003	9.102	0.011
TKS4	0.223	0.824	-0.531	0.595	0.332	0.847
TKS5	-0.095	0.924	-2.798	0.005	7.84	0.02
TKS6	-0.643	0.52	-1.971	0.049	4.297	0.117
Mot1	-3.691	0	1.595	0.111	16.165	0
Mot2	-3.161	0.002	0.263	0.793	10.063	0.007
Mot3	-3.185	0.001	0.6	0.549	10.502	0.005
Mot4	-3.47	0.001	0.144	0.885	12.064	0.002
Mot5	-3.775	0	0.651	0.515	14.679	0.001
Mot6	-3.54	0	0.15	0.881	12.551	0.002
Mot7	-4.04	0	1.174	0.24	17.702	0
EKU1	-2.431	0.015	2.129	0.033	10.443	0.005
EKU2	-1.238	0.216	-0.46	0.645	1.744	0.418
EKU3	-1.238	0.216	-0.46	0.645	1.744	0.418
EKU4	-1.395	0.163	-0.439	0.661	2.138	0.343
EKU5	-2.787	0.005	0.221	0.825	7.814	0.02
EKU6	-3.29	0.001	2.216	0.027	15.734	0
ABK1	-0.663	0.507	-0.828	0.408	1.125	0.57
ABK2	0.176	0.86	-1.993	0.046	4.002	0.135
ABK3	-0.576	0.564	0.037	0.971	0.334	0.846
ABK4	0.182	0.856	-1.002	0.316	1.037	0.596
ABK5	-1.261	0.207	-0.537	0.591	1.88	0.391
ABK6	-0.571	0.568	-1.143	0.253	1.633	0.442
SPS1	-0.653	0.514	1.586	0.113	2.943	0.23
SPS2	2.292	0.022	0.4	0.689	5.412	0.067
SPS3	1.966	0.049	-1.034	0.301	4.934	0.085
SPS4	0.174	0.862	-1.991	0.047	3.992	0.136
SPS5	0.537	0.591	-1.23	0.219	1.801	0.406

Test of Multivariate Normality							
Relative Multivariate Kurtosis = 0.994							
Value	Z-Score	P-value	Value	Z-Score	P-value	Chi-Square	P-value
4424.192	1.739	0.082	7012.579	2.709	0.007	10.363	0.006

Source: The researcher

6-4-3 Homoscedasticity Assessment

According to Hair et al., (2006) homoscedasticity is the assumption of normality related with the supposition that dependent variable(s) display an equal variance across the number of independent variable(s). Whereas, Tabachnick and Fidell (2007) defined homoscedasticity as variability in scores for one variable roughly same to the values of all other variables. The assumption of equal variation between variables is pre-requisite in multiple regressions (Field, 2009). Within multivariate analysis, the failure of homoscedasticity is also known heteroscedasticity and can create serious problem (Hair et al., 2006).

The most common method for assessing the homoscedasticity is Levene's test of equal variance (Hair et al., 2006; Field, 2009; Pallant, 2007). If Levene's test is nonsignificant ($p > 0.05$), the homogeneity of variance assumption is tenable. After examining the variance ratio and the Levene's test (Levene's test was non-significant, $p > 0.05$, except for few indicators), it was found that the variances were not statistically different (see table 6.6). The non-significant result indicated that the homoscedasticity assumption was met (Field, 2009).

TABLE 6. 6: TEST OF HOMOGENEITY OF VARIANCE (LEVENE’S TEST)

Indicator	Based On Mean		Based on Median		df1	df2
	Levene Statistic	Sig.	Levene Statistic	Sig.		
WSK1	0.335	0.563	1.680	0.197	1	133
WSK2	0.593	0.443	0.275	0.601	1	133
WSK3	0.418	0.519	1.635	0.203	1	133
WSK4	0.890	0.347	0.456	0.501	1	133
WSK5	0.524	0.470	0.019	0.890	1	133
WSK6	0.901	0.344	0.117	0.733	1	133
SE1	3.271	0.073	3.808	0.053	1	133
SE2	1.216	0.272	0.041	0.840	1	133
SE3	0.577	0.449	0.151	0.698	1	133
SE4	1.195	0.276	1.100	0.296	1	133
SE5	0.067	0.795	1.076	0.302	1	133
Tr1	0.022	0.882	0.109	0.742	1	133
Tr2	0.127	0.722	0.494	0.483	1	133
Tr3	0.248	0.620	1.605	0.207	1	133
Tr4	1.399	0.239	2.995	0.086	1	133
Tr5	0.009	0.924	6.030	0.015	1	133
Tr6	0.026	0.871	0.037	0.848	1	133
Val1	0.264	0.608	0.056	0.813	1	133
Val2	0.318	0.574	2.723	0.101	1	133
Val3	1.077	0.301	1.080	0.300	1	133
Val4	0.328	0.568	1.786	0.184	1	133
Val5	0.002	0.967	1.120	0.292	1	133
Val6	1.275	0.261	0.878	0.351	1	133
MKT1	2.625	0.108	19.259	0.000	1	133
MKT2	2.017	0.158	6.508	0.012	1	133
MKT3	2.497	0.116	1.561	0.214	1	133

Indicator	Based On Mean		Based on Median		df1	df2
	Levene Statistic	Sig.	Levene Statistic	Sig.		
MKT4	1.052	0.307	0.036	0.851	1	133
MKT5	1.123	0.291	0.205	0.651	1	133
MKT6	0.630	0.429	0.224	0.636	1	133
ESK1	0.189	0.665	1.539	0.217	1	133
ESK2	0.106	0.746	1.323	0.252	1	133
ESK3	0.611	0.436	0.192	0.662	1	133
ESK4	0.132	0.717	0.052	0.820	1	133
ESK5	0.350	0.555	1.315	0.254	1	133
ESK6	1.114	0.293	2.038	0.156	1	133
ESK7	0.271	0.604	1.014	0.316	1	133
CKT1	0.546	0.461	0.002	0.961	1	133
CKT2	5.538	0.020	0.002	0.963	1	133
CKT3	0.526	0.469	1.409	0.237	1	133
CKT4	1.305	0.255	4.221	0.042	1	133
CKT5	0.006	0.938	1.424	0.235	1	133
CKT6	0.001	0.974	0.025	0.875	1	133
SKT1	0.195	0.659	0.000	0.983	1	133
SKT2	1.702	0.194	2.576	0.111	1	133
SKT3	3.647	0.058	0.306	0.581	1	133
SKT4	3.528	0.063	1.404	0.238	1	133
SKT5	6.853	0.010	0.062	0.804	1	133
SKT6	5.745	0.018	0.301	0.584	1	133
Pow1	3.891	0.051	2.130	0.147	1	133
Pow2	0.101	0.751	0.007	0.931	1	133
Pow3	0.407	0.525	6.545	0.012	1	133
Pow4	0.192	0.662	0.351	0.555	1	133
Pow5	0.009	0.924	0.124	0.725	1	133

Indicator	Based On Mean		Based on Median		df1	df2
	Levene Statistic	Sig.	Levene Statistic	Sig.		
TKS1	2.734	0.101	0.945	0.333	1	133
TKS2	1.848	0.176	4.015	0.047	1	133
TKS3	0.604	0.438	1.532	0.218	1	133
TKS4	0.840	0.361	0.078	0.781	1	133
TKS5	0.985	0.323	1.309	0.255	1	133
TKS6	1.728	0.191	0.230	0.632	1	133
Mot1	0.567	0.453	0.338	0.562	1	133
Mot2	1.118	0.292	1.327	0.251	1	133
Mot3	1.144	0.287	0.301	0.584	1	133
Mot4	0.202	0.654	0.605	0.438	1	133
Mot5	0.129	0.720	0.814	0.369	1	133
Mot6	0.275	0.601	1.034	0.311	1	133
Mot7	6.386	0.013	6.319	0.013	1	133
EKU1	0.105	0.747	0.123	0.726	1	133
EKU2	2.480	0.118	0.266	0.607	1	133
EKU3	1.994	0.160	0.876	0.351	1	133
EKU4	2.031	0.156	0.487	0.486	1	133
EKU5	0.004	0.947	0.008	0.930	1	133
EKU6	0.335	0.563	0.391	0.533	1	133
ABK1	0.072	0.789	0.062	0.803	1	133
ABK2	0.449	0.504	3.980	0.048	1	133
ABK3	1.134	0.289	0.092	0.762	1	133
ABK4	1.511	0.221	0.390	0.533	1	133
ABK5	4.642	0.033	0.006	0.938	1	133
ABK6	0.965	0.328	0.194	0.661	1	133
SPS1	0.903	0.344	1.217	0.272	1	133
SPS2	0.643	0.424	0.643	0.424	1	133

Indicator	Based On Mean		Based on Median		df1	df2
	Levene Statistic	Sig.	Levene Statistic	Sig.		
SPS3	0.005	0.945	0.008	0.930	1	133
SPS4	0.941	0.334	0.773	0.381	1	133
SPS5	0.404	0.526	0.005	0.943	1	133

Source: The researcher

6-4-4 Common method bias:

The data in this study were self-reported and collected by means of the same survey for measuring all variables during the same period of time, indicating that issues of common method bias be of concern. According to Hair et al. (2006), the common method bias (or constant methods bias) implies that “the covariance among measured items is influenced by the fact that some or all of the responses are collected with the same type of scale”. For this reason, the study might have been affected by common method bias (Hair et al., 2006).

In this study, existence of common method variance bias among the study variables is determined by performing Harman’s (Podsakoff & Organ, 1986) single-factor test. To carry out this test, the items were subjected to an exploratory factor analysis using principal component analysis with varimax rotation. According to Podsakoff and Organ (1986), a common method variance is present when “either (a) a single factor will emerge from the factor analysis, or (b) one “general” factor will account for the majority of the covariance in the dependent and criterion variables”. In this examination, no single factor emerged. In addition, each factor explained less than fifty percent (minority) of the variance in the data (see Table 6.7).

TABLE 6. 7: COMMON METHOD BIAS (FACTOR ANALYSIS)

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.45	8.869	8.869	7.45	8.869	8.869	4.894	5.826	5.826
2	6.798	8.093	16.962	6.798	8.093	16.962	4.807	5.723	11.549
3	6.413	7.634	24.596	6.413	7.634	24.596	4.763	5.67	17.219
4	5.855	6.971	31.566	5.855	6.971	31.566	4.73	5.631	22.85
5	5.425	6.459	38.025	5.425	6.459	38.025	4.69	5.583	28.433
6	4.945	5.887	43.912	4.945	5.887	43.912	4.641	5.524	33.957
7	4.654	5.54	49.452	4.654	5.54	49.452	4.64	5.524	39.481
8	3.981	4.739	54.19	3.981	4.739	54.19	4.631	5.513	44.994
9	3.619	4.308	58.499	3.619	4.308	58.499	4.616	5.495	50.49
10	3.515	4.184	62.683	3.515	4.184	62.683	4.569	5.44	55.93
11	3.258	3.878	66.562	3.258	3.878	66.562	4.518	5.379	61.308
12	3.016	3.59	70.152	3.016	3.59	70.152	4.432	5.276	66.585
13	2.755	3.28	73.432	2.755	3.28	73.432	4.036	4.805	71.389
14	2.478	2.95	76.382	2.478	2.95	76.382	4.022	4.788	76.177
15	1.125	1.339	77.72	1.125	1.339	77.72	1.167	1.39	77.567

16	1.038	1.235	78.956	1.038	1.235	78.956	1.167	1.389	78.956
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Source: The researcher

6-5 Structural Equation Modeling (SEM):

Among various multivariate statistical techniques available to analyze the relationship between a set of variables including, discriminant analysis, path analysis, factor analysis, multiple Regression analysis (Hair et al., 2014), this thesis adopted Structural equation modeling (SEM). SEM is a part of multivariate statistical techniques employed to examine both direct and indirect relationships between one or more independent variables and one or more dependent variables (Gefen et al., 2000, Ringle et al. 2010). Compared with first-generation techniques such as factor analysis, discriminant analysis etc, which examine only single relationships, SEM is used to test ‘complex’ relationships between observed (measures) and unobserved (latent) variables, and also relationships between two or more latent variables.

6-5-1 Types of models in SEM:

SEM contains two interrelated models, measurement model and structural model (Gefen et al., 2000). The measurement (outer) model defines the constructs (latent variables) that the model uses, and allocates observed variables to each, while structural (inner) model defines the hypothetical relationship among the latent variables (Hair et al., 2006; Gefen et al., 2000). It is important to clarify that latent variable is representation of the theoretical construct which cannot be observed directly and can have exogenous form (i.e. independent variable) or endogenous form (i.e. dependent variable) in model (Hair et al., 2006).

6-5-2 SEM Approaches

Currently, there are two general approaches to SEM: covariance-based structural equation modeling, and the variance based structural equation modeling. Covariance-based SEM attempts to minimize the differences in the sample covariances and those predicted by the theoretical model whereby the parameter estimation process tries to reproduce the covariance matrix of the observed measures (Hair et al., 2014; Haenlein & Kaplan 2004). The variance-based approach on the other hand, focuses on maximizing the variance of the dependent variables explained by the independent ones (Haenlein & Kaplan 2004).

The Partial Least Squares approach (PLS-SEM) which is used in this thesis, is a variance-based SEM. Some reasons for the justification the choice of PLS-SEM is its power of analysis, its sample size, and its complexity, and other factors as presented by (Chin & Newsted, 1999; Chin, 2010) in table 6.8.

TABLE 6. 8: COMPARISON BETWEEN CB-SEM AND PLS-SEM

Characteristics	CB-SEM	PLS-SEM
Objective	Parameters oriented	Prediction oriented
Approaches	Covariance	Variance
Assumptions	Typically, Multivariate normal distribution and independent	Predictor specification (non parametric)
Parameter estimates	Consistent	Consistent as indicators and sample size increase
Latent variables (LVs) scores	Indeterminate	Explicitly estimated
Epistemic relationship between LVs and its indicators	Typically, only for reflective mode	Both reflective and formative mode
Implications	Optimal parameters accuracy	Optimal prediction accuracy
Model complexity	Small to moderate model complexity (e.g. less than 100 indicators)	Large complexity (e.g. 100 constructs and 1000 indicators)
Sample size	Ideally based on analysis of a specific model. Minimum sample size recommendation ranges from 200 to 800.	Power analysis based on the portion of the model with the largest predictors. Minimal recommendation ranges from 30 to 100

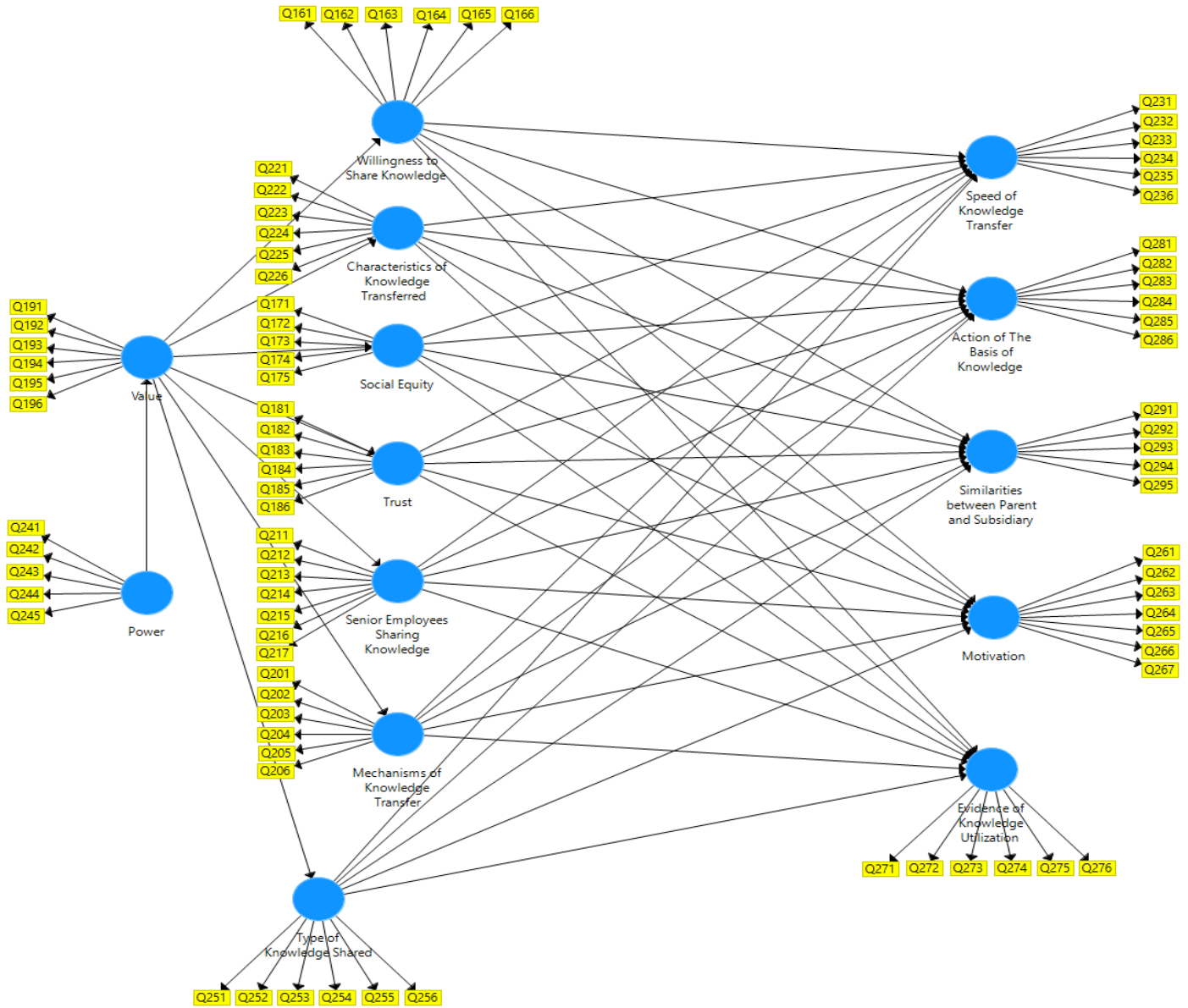
Source: The researcher

6-5-3 Partial Least Square (PLS):

Partial Least Square (PLS) was originated by a Herman Wold in the 1970s (Chin, 1998). PLS includes alternating least squares algorithms, which extend principal component and canonical correlation analysis (Henseler et al., 2009). Figure (6.24) presents the proposed conceptual model

as displayed in Smart-PLS, it can be used as a reference to aid in the understanding of the concepts presented in this section.

FIGURE 6. 24: THE STRUCTURAL MODEL AND MEASUREMENTS



In PLS modeling statistical analysis, one must distinguish between an outer and an inner model which are referred to as the measurement model and the structural model, respectively.

An outer or a measurement model reflects the relationship between each ‘unobserved’ construct or latent variable (LV) (blue circles), that needs to be predicted, and the independent ‘predictors’

which are the ‘indicators’ or ‘observed measurement items’ (yellow squares) that are also referred to as ‘manifest variables’ (MVs) (Henseler et al. 2009; Ringle et al. 2010). For example, the latent variable “Willingness to Share Knowledge” is measured by 6 indicators Q161 to Q166.

An inner or a structural model, is a set of directed paths reflecting a “causal chain” between constructs or LVs, (Henseler et al. 2009); where the relationship originates from one construct or LV and ‘points’ to another LV. A structural model is usually a hypothesized theoretical model (Ringle et al. 2010). For example, the arrows connecting “Social Equity” with “Motivation” represent a direct relationship that is hypothesized between these two variables. Any LV that is independent and predicts another LV is referred to as an “exogenous” LV, and any LV that is predicted or dependent on or explained by another LV is referred to as “endogenous” LV (Chin et al. 2003; Henseler et al. 2009; Hair et al. 2011). In our model, “Power” is an exogenous variable, while all the other variables are endogenous.

In the structural (inner) model, the values that appear on the paths between each of the LVs in the structural model are called ‘path coefficients. A path coefficient is the direct effect of one exogenous LV on another endogenous LV, i.e. it is the amount of change (increase/decrease) in the endogenous LV when the exogenous LV increases by 1 standard deviation (assuming standardized data).

Assessment of Measurement and Structural Models using Partial Least Square:

In this thesis, the research model is assessed using a two-step process: (1) the assessment of the measurement model; and, (2) the assessment of the structural model (Chin et al. 2003; Henseler et al. 2009; Ringle et al. 2010; Hair et al. 2011). This is conducted to ensure initially that the measurement items of each construct are reliable and that they are valid before attempting to draw conclusions about the nature of the constructs’ relationships (Hulland 1999). Before validating the goodness of the structural (inner) model, we need to first assess the goodness of the measurement (outer) model. In doing so, we need to test, both, the outer model’s validity and reliability.

6-6 Assessment of Measurement model:

The validation of the measurement model can be established by examining its indicator reliability, internal consistency, convergent validity and discriminant validity (Hair et al. 2014).

6-6-1 Indicator Reliability

The purpose of assessing indicators reliability is to evaluate the extent to which a variable or a set of variables is consistent with what it intends to measure (Urbach and Ahlemann, 2010). Moreover, the reliability of a construct is independent and has a distinct calculation from other constructs. The significance of indicator loadings is recommended to be at least at the 0.05 level, with loadings of 0.7 (Chin, 1998).

Based on PLS measurement analysis, table 5 show that the absolute correlation between the construct and its measuring manifest items (i.e. factor loading) was above than the minimum threshold criterion 0.4. The factor loading was ranging from 0.76 to 0.95 and satisfied the requirements of the psychometric reliability test (Henseler et al., 2009).

6-6-2 Internal Consistency

Traditionally, internal consistency for a measurement model can be assessed using Cronbach's alpha (CA). Essentially, constructs with high Cronbach's alpha values meant that the items within the construct have the same range and meaning (Cronbach, 1971). Employing Cronbach's alpha offers an estimate for the reliability based on indicator intercorrelations.

Within PLS, internal consistency is also measured using composite reliability (Chin, 1998). Both composite reliability and Cronbach's alpha measure internal consistency, but composite reliability takes into consideration that indicators have different loadings. Cronbach's alpha may underestimate the internal consistency reliability, where it does not assume the equivalent among the measures and assuming all indicators are equally weighted (Werts et al., 1974). Internal consistency reliability is considered satisfactory when the value is at least 0.7 in the early stage, and above 0.8 or 0.9 in more advanced stages of research. Value below 0.6 indicate a lack of reliability (Hair et al. 2014). Table 6.9 shows that the Cronbach's alpha was ranging from 0.93 to 0.955, while composite reliability was ranging from 0.947 to 0.994 and both exceed the recommended threshold.

6-6-3 Convergent Validity

According to Urbach and Ahlemann (2010), convergent validity involves the degree to which individual items reflect a construct converging in comparison to items measuring different constructs. It can be assessed using the value of average variance extracted (AVE). Adequate convergent validity is achieved when the AVE value of a construct is at least 0.5 (Fornell and

Larcker, 1981). Table 6.9 shows that AVE extracted for each construct was higher than the required value 0.5 (50%) and indicate that each construct has capability to explain more than half of the variance to its measuring items on average.

6-6-4 Discriminant Validity

According to Urbach and Ahlemann (2010), discriminant validity is used to differentiate a construct's measures from one another. It also measures the degree of difference between overlapping constructs (Hair et al., 2014). Unlike convergent validity, discriminant validity tests whether the items unintentionally measure something else besides the intended construct. In PLS, Fornell-Larcker's criterion (Fornell and Larcker, 1981) is commonly used to test discriminant validity (Chin, 1998). Applying Fornell-Larcker's criterion requires a latent variable to share more variance with its assigned indicators than with any other latent variable. This method compares the square root of the average variance extracted (AVE) with the correlation of latent constructs. A latent construct should better explain the variance of its own indicator rather than the variance of other latent constructs. Therefore, the square root of each construct's AVE should exceed the correlations with other latent constructs (Hair et al., 2014).

Table10, shows the results of Fornell-Larcker's criterion the values in the diagonal (bold) is the for each variable, and the other values represent the correlations between the variables in a respective row and column. We can easily notice that diagonal values (square root of AVE) exceed all the other values (correlations) in each column, and hence the discriminant validity is satisfied.

TABLE 6. 9: RESULTS SUMMARY FOR MEASUREMENT MODEL

Variable	Indicator	Outer Loading	Indicator reliability (Squared Outer Loading)	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Willingness to Share Knowledge	WSK1	0.894	0.7992	0.934	0.948	0.752
	WSK2	0.857	0.7344			
	WSK3	0.883	0.7797			
	WSK4	0.921	0.8482			
	WSK5	0.851	0.7242			
	WSK6	0.791	0.6257			
Social Equity	SE1	0.856	0.7327	0.935	0.951	0.795
	SE2	0.899	0.8082			
	SE3	0.912	0.8317			
	SE4	0.923	0.8519			
	SE5	0.867	0.7517			
Trust	Tr1	0.871	0.7586	0.951	0.961	0.803
	Tr2	0.921	0.8482			
	Tr3	0.913	0.8336			
	Tr4	0.946	0.8949			
	Tr5	0.866	0.7500			
	Tr6	0.858	0.7362			
Value	Val1	0.851	0.7242	0.939	0.952	0.768
	Val2	0.9	0.8100			
	Val3	0.907	0.8226			
	Val4	0.915	0.8372			
	Val5	0.851	0.7242			
	Val6	0.831	0.6906			
	MKT1	0.872	0.7604	0.935	0.949	0.757

Variable	Indicator	Outer Loading	Indicator reliability (Squared Outer Loading)	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Mechanisms of Knowledge Transfer	MKT2	0.896	0.8028			
	MKT3	0.898	0.8064			
	MKT4	0.925	0.8556			
	MKT5	0.856	0.7327			
	MKT6	0.763	0.5822			
Senior Employees Sharing Knowledge	ESK1	0.879	0.7726	0.947	0.957	0.76
	ESK2	0.889	0.7903			
	ESK3	0.886	0.7850			
	ESK4	0.893	0.7974			
	ESK5	0.842	0.7090			
	ESK6	0.878	0.7709			
	ESK7	0.834	0.6956			
Characteristics of Knowledge Transferred	CKT1	0.88	0.7744	0.942	0.954	0.778
	CKT2	0.929	0.8630			
	CKT3	0.912	0.8317			
	CKT4	0.934	0.8724			
	CKT5	0.858	0.7362			
	CKT6	0.767	0.5883			
Pace or Speed of Knowledge Transfer	SKT1	0.855	0.7310	0.955	0.964	0.818
	SKT2	0.925	0.8556			
	SKT3	0.918	0.8427			
	SKT4	0.952	0.9063			
	SKT5	0.91	0.8281			
	SKT6	0.862	0.7430			
Power	Pow1	0.853	0.7276	0.936	0.95	0.759

Variable	Indicator	Outer Loading	Indicator reliability (Squared Outer Loading)	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
	Pow2	0.91	0.8281			
	Pow3	0.903	0.8154			
	Pow4	0.902	0.8136			
	Pow5	0.805	0.6480			
Type of Knowledge Shared	TKS1	0.869	0.7552	0.939	0.952	0.768
	TKS2	0.889	0.7903			
	TKS3	0.925	0.8556			
	TKS4	0.914	0.8354			
	TKS5	0.885	0.7832			
	TKS6	0.767	0.5883			
Motivation	Mot1	0.861	0.7413	0.947	0.957	0.762
	Mot2	0.892	0.7957			
	Mot3	0.905	0.8190			
	Mot4	0.938	0.8798			
	Mot5	0.875	0.7656			
	Mot6	0.806	0.6496			
	Mot7	0.825	0.6806			
Evidence of Knowledge Utilization	EKU1	0.887	0.7868	0.949	0.96	0.789
	EKU2	0.909	0.8263			
	EKU3	0.9	0.8100			
	EKU4	0.938	0.8798			
	EKU5	0.861	0.7413			
	EKU6	0.864	0.7465			
Action of the Basis of Knowledge	ABK1	0.887	0.7868	0.942	0.954	0.775
	ABK2	0.88	0.7744			

Variable	Indicator	Outer Loading	Indicator reliability (Squared Outer Loading)	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
	ABK3	0.916	0.8391			
	ABK4	0.932	0.8686			
	ABK5	0.841	0.7073			
	ABK6	0.822	0.6757			
Similarities between Parent and Subsidiary	SPS1	0.82	0.6724	0.93	0.947	0.783
	SPS2	0.916	0.8391			
	SPS3	0.925	0.8556			
	SPS4	0.922	0.8501			
	SPS5	0.836	0.6989			

Source: The researcher

TABLE 6. 10: FORNELL-LARCKER CRITERION ANALYSIS FOR CHECKING DISCRIMINANT VALIDITY

Variables	ABK	CKT	EKU	MKT	Mot	Pow	ESK	SPS	SE	SKT	Tr	TKS	Val	WSK
ABK	0.881													
CKT	0.794	0.882												
EKU	0.771	0.849	0.894											
MKT	0.769	0.743	0.735	0.87										
Mot	0.75	0.811	0.79	0.82	0.873									
Pow	0.77	0.768	0.798	0.764	0.792	0.871								
ESK	0.812	0.825	0.797	0.832	0.872	0.788	0.872							
SPS	0.787	0.714	0.692	0.806	0.786	0.71	0.858	0.885						
SE	0.685	0.715	0.723	0.794	0.789	0.673	0.779	0.803	0.892					
SKT	0.77	0.799	0.819	0.806	0.851	0.845	0.867	0.81	0.747	0.904				
Tr	0.775	0.717	0.745	0.714	0.828	0.784	0.809	0.746	0.76	0.834	0.896			
TKS	0.721	0.741	0.772	0.758	0.794	0.764	0.785	0.811	0.695	0.824	0.673	0.876		
Val	0.811	0.699	0.704	0.75	0.714	0.68	0.769	0.808	0.746	0.795	0.686	0.779	0.876	
WSK	0.783	0.813	0.774	0.834	0.779	0.752	0.849	0.754	0.837	0.802	0.76	0.696	0.741	0.867

Source: The researcher

6-7 Assessment of Structural Model

The structural model can only be analyzed after the measurement model has been validated successfully. Validating the structural model can aid in evaluating systematically whether the hypotheses expressed by the structural model are supported by the data (Urbach and Ahlemann, 2010). In PLS, a structural model can be evaluated using the coefficient of determination (R^2) and path coefficients.

The first important criterion for assessing the structural model is to evaluate each endogenous latent variable's coefficient of determination (R^2), which measures the relationship of a latent variable's explained variance to its total variance. According to Chin (1998), a value of R^2 around 0.67 is considered substantial, while values around 0.333 are moderate, and values of 0.19 and lower are weak. Result of coefficient of determination (R^2) is presented in table 6.11, the values of R^2 ranging from 0.441 to 0.861.

TABLE 6. 11: THE COEFFICIENT OF DETERMINATION (R^2)

Variable	R^2
Action of The Basis of Knowledge	0.764
Characteristics of Knowledge Transferred	0.454
Evidence of Knowledge Utilization	0.802
Mechanisms of Knowledge Transfer	0.539
Motivation	0.861
Senior Employees Sharing Knowledge	0.551
Similarities between Parent and Subsidiary	0.834
Social Equity	0.549
Speed of Knowledge Transfer	0.859
Trust	0.441
Type of Knowledge Shared	0.611
Value	0.451
Willingness to Share Knowledge	0.529

Source: The researcher

Following the criterion of Chin (1998) model is considered to be moderately to substantial fit. The largest values of R^2 (>0.67) was for the variables: motivation, speed of knowledge transfer, similarities between parent and subsidiary, evidence of knowledge utilization, and action of the

basis of knowledge, which imply that the model substantially explains the variance in these variables. The rest of the model variables have R^2 above ranging from 0.441 to 0.611, which means that the model moderately explains the variances in these variables.

The second criterion for assessing the structural model is to examine the path coefficient value, which predicts the strength of the relationship between two latent variables. To examine the relationship between two latent variables, the researcher should check the path coefficients, algebraic sign, magnitude, and significance. Path coefficients must exceed 0.1 to account for a certain impact within the model and to be significant at the 0.05 level of significance (Hair et al., 2014).

Table 6.12 presents the path coefficients, and significance level for all hypothesized relationships. Using the results from the path assessment, each proposed hypothesis either accept or reject. These results are discussed in the next section.

TABLE 6. 12: THE PATH COEFFICIENTS, AND SIGNIFICANCE LEVEL FOR ALL HYPOTHESIZED RELATIONSHIPS.

	Path	Path Coefficient	P Values	Supported / Not-Supported
H1	Power → Action of The Basis of Knowledge	0.44	< 0.001	<i>Supported</i>
	Power → Evidence of Knowledge Utilization	0.46	< 0.001	
	Power → Motivation	0.489	< 0.001	
	Power → Similarities between Parent & Subsidiary	0.498	< 0.001	
	Power → Speed of Knowledge Transfer	0.49	< 0.001	
H2	Trust → Motivation	0.314	0.003	<i>Supported</i>
	Trust → Speed of Knowledge Transfer	0.335	0.001	
H3	Social Equity → Motivation	0.133	0.271	<i>Not Supported</i>
	Social Equity → Speed of Knowledge Transfer	-0.049	0.626	
H4	Mechanisms of Knowledge Transfer → Similarities between Parent & Subsidiary	0.085	0.612	<i>Not Supported</i>
H5	Willingness to Share Knowledge → Evidence of Knowledge Utilization	0.07	0.691	<i>Not Supported</i>

	Path	Path Coefficient	P Values	Supported / Not-Supported
	Willingness to Share Knowledge → Speed of Knowledge Transfer	0.039	0.833	
H6	Type of Knowledge Shared → Speed of Knowledge Transfer	0.298	0.008	<i>Supported</i>

Source: The researcher

To test the proposed hypotheses and the structural model, path coefficients between latent variables are assessed. A path coefficient value should be at least 0.1 to account for a certain impact within the model (Hair et al., 2011; Wetzels et al., 2009). Of these path coefficients in this model (see Table 6.12), three of proposed hypotheses are supported. Supported hypotheses are significant at the level of 0.05, have signs in the expected directions, and possess a path coefficient value (β) ranging from 0.298 to 0.489.

As shown in table 6.12, power is positively related to on the variables representing effective reverse knowledge transfer, namely, action of the basis of knowledge, evidence of knowledge utilization, motivation, similarities between parent and subsidiary, and speed of knowledge transfer, supporting H1. Further, trust is positively related to both speed of knowledge transfer, and motivation, supporting H2. In support of H6, type of knowledge shared found to be positively related to speed of knowledge transfer.

On the other hand, the results don't support H3, as we can see that there is almost no effect of social equity on speed of knowledge transfer ($\beta = -0.049$). Also, the results show a positive effect of social equity on motivation (the willingness of the subsidiary to engage in knowledge transfer), however, this effect is not statistically significant ($p\text{-value} > 0.05$). With regard to H4, the results also don't support this hypothesis, as we can see that there is almost no effect of mechanisms of knowledge transfer on similarities between parent and subsidiary ($\beta = 0.085$). Finally, H5 is also not supported, as shown in table 6.12, the effect willingness to share knowledge on both evidence of knowledge utilization ($\beta = 0.07$), and speed of knowledge transfer ($\beta = 0.039$).

CHAPTER 7: DISCUSSION CHAPTER

This chapter discuss the results of the empirical findings of the research for the testing of each hypothesis

7.1 Hypothesis discussion

Discussion of H1

H1 posited that *the relationship between organisational power and effectiveness of reverse knowledge transfer is mediated by the culture of the GCC based parent firm*. Established on the premise that for two reasons, the parent firm holds power over the subsidiary. The first reason is relatively straightforward, in that the subsidiary only exists because of parental intervention, and so it is understandable that there is a power relationship whereby to a greater or lesser degree, the parent can compel certain activities in the subsidiary firm. However, within the context of this study, it is held that there is an additional reason that the parent holds power over the subsidiary, which relates to the culture of GCC headquartered firms.

Existing studies have established that in GCC headquartered firms, there is a particularly strong hierarchical relationship, which deepens the relationship of power (Kneuer et al., 2019). Furthermore, because of the strong hierarchical norms in GCC culture, it is extremely likely that a subsidiary will be managed, controlled or overseen by an individual who is held in high esteem by the GCC parent, quite probably with familial relationship or other similar powerful social connection (Kneuer et al., 2019). The implications of the existence of this relationship are that the power balance between the parent and subsidiary remains strongly hierarchical and from this relationship, other aspects of RKT flow, such as willingness to share knowledge, the speed at which knowledge is shared, and also because of the cultural similarity between parent and subsidiary, the greatly reduced likelihood of unintentional miscommunication. In plain terms, the conduit of the manager of the subsidiary facilitates a much more effective approach to RKT which then cascades into other mediating variables positively affecting the relationship of RKT.

Reflected in Table 7.1 below are the results of the hypothesis testing, which reveal a significant positive effect of power on the mediating variables representing effective RKT. As illustrated in table 7.1, the P values are all < 0.001 which indicates a high degree of statistical probability. Or to express this another way, the findings suggest that it is highly unlikely that the outcome of this hypothesis is a result of random chance. The most significant mediating variable is the

similarity between the parent and subsidiary in terms of culture (0.498), which can be considered a reasonable explanation given the strong likelihood that a subsidiary will be managed overseen by someone with close social and cultural ties. The second most significant mediating variable is that of motivation (0.489) which is also a reasonable finding, on the basis that because of the nature of this particular relationship, and the presence of particular individual with close connections to the parent, there will be a strong degree of motivation and willingness to share knowledge.

The third most significant factor is the speed of knowledge transfer (0.49) which is also reasonable, as if there is a willingness and motivation to share knowledge it is also likely relevant knowledge will be shared promptly as soon as it becomes apparent that it is necessary to do so or even before it becomes apparent that it is necessary to do so. Further, the results of the testing revealed that there is evidence of knowledge utilisation by the parent firm (0.46) something which is recognised in literature as potentially being a cause of contention, where parent firms in developed economies remain dismissive of the contribution of their subsidiaries (Driffeld et al., 2016). Finally, proactive activity action on the basis of knowledge transfer is evident (0.44) which may potentially be explained on the basis that the parent company in the GCC, whilst considering the knowledge to be useful in terms of understanding what is happening in the wider market, may not have the means or opportunity to act on the knowledge promptly.

Collectively, however, there can be confidence in accepting the outcome of the hypothesis because of the significant positive effect of power on this collection of mediating variables.

TABLE 7. 1: RESULTS OF H1 TESTING

Path	Original Sample (O)	P Values	Confidence interval	
			2.50%	97.50%
Power → Action of The Basis of Knowledge	0.44	< 0.001	0.219	0.63
Power → Evidence of Knowledge Utilization	0.46	< 0.001	0.253	0.662
Power → Motivation	0.489	< 0.001	0.293	0.677
Power → Similarities between Parent and Subsidiary	0.498	< 0.001	0.298	0.673
Power → Speed of Knowledge Transfer	0.49	< 0.001	0.266	0.68

Source: The researcher

Discussion of H2

H2 proposed that *the relationship between the speed of knowledge transfer and the willingness of the subsidiary to engage in knowledge transfer is mediated by the existence of trust between the parent and subsidiary firm*. With this proposition building on the literature which has clearly established that without the existence of trust between a parent and subsidiary, even interparty between subsidiaries, then all knowledge may not be transferred (Mudambi and Navarra, 2015). In fact, defensive protection of knowledge might take place for a number of reasons such as the subsidiaries are in competition with one another, and so have no willingness to share knowledge, or the subsidiary knows that its contribution is not valued by the parent and therefore knowledge transfer is a pointless exercise (Reiche, 2011). Further, Muthusamy and White (2005) postulate that the subsidiary might hold back knowledge due to cross-cultural communication challenges, or a lack of contextual understanding.

On a social level it is quite understandable that without trust, knowledge will not be transferred. *Social Psychological Lens Theory*, (Zittoun and Perret-Clermont, 2009) discussed extensively in **Chapter 3.0** confirms that the absence of trust is a very significant barrier to effective knowledge transfer. Thus it is not a surprise to find that the converse is also true, in that where there is a positive relationship between the parent and subsidiary, further enhanced by the strong likelihood of strong social and cultural ties, then higher degree of trust is present and this positively impacts on the mediating variables of the speed of knowledge transfer and also the willingness of the subsidiary to share its knowledge. As the detail of Table 7.2 reveals, there is support for the hypothesis that the existence of trust between a parent and subsidiary positively influences the speed and willingness of the subsidiary to engage in knowledge transfer.

The results of the testing show that there is slightly more support for the relationship of trust and speed of knowledge transfer (0.335), and marginally weaker relationship between trust and motivation to engage in knowledge transfer (0.314) with the P-values of these tests being 0.001 and 0.003 respectively. To contextualise, these findings are both indicative of a strong relationship because there is a significant positive effect of trust on both of these variables. These findings would be consistent with literature (Fong Boh et al., 2013), and also consistent with the findings of H1 in as far as if there is not a cultural norm for the parent and the subsidiary to trust one another, then there is less likely to be a strong positive relationship between the willingness to share knowledge quickly, and be motivated to do so.

TABLE 7. 2: RESULTS OF H2 TESTING

Path	Original Sample (O)	P Values	Confidence interval	
			2.50%	97.50%
Trust → Motivation	0.314	0.003	0.109	0.542
Trust → Speed of Knowledge Transfer	0.335	0.001	0.14	0.54

Source: The researcher

Discussion of H3

H3 suggested that *the relationship between speed of knowledge transfer between subsidiary and the parent and the willingness of the subsidiary to engage in knowledge transfer is mediated by the existence of social equity*. The construct of social equity extends from the social psychological lens and theorises the existence of a shared mutual understanding between parties, typically embedded in either shared experiences or shared cultural norms. Social equity is also concerned with ‘sense making’ in so far as the pre-existence of shared understanding or experiences helps contextualise knowledge transfer between parties who might not otherwise have met (Minbaeva, 2007). As elucidated previously in respect of the unique aspect of GCC parents typically sending trusted family members to manage operate subsidiaries, this lays the foundations for social equity, and in principle makes it easier to facilitate knowledge transfer.

One aspect of literature which offers explanation for some of the challenges or barriers in knowledge transfer and particularly RKT, is a lack of contextual understanding. Some papers have suggested that the lack of contextual understanding is semi-deliberate in so far as the parent considers itself to be superior to the subsidiary, and so is largely dismissive of the value of contextual understanding in relation to RKT (Pérez-Nordtvedt et al., 2008). For example, there are particular features of the culture or character of the nation where the subsidiary is located, which explain unique dimensions of organisational behaviour or customer or client norms. However, the parent, lacking this lived experience, dismisses the nature of knowledge transfer because of a lack of social equity, considering the observations put forward by the subsidiary to be inaccurate as explanations of by the subsidiary do not conform to the worldview (or social understanding) of the parent (Cameron and Quinn, 2011).

Other explanations for the challenges in RKT related to social equity relate to the unintentional dismissal of knowledge from the subsidiary to the parent, whereby the parent displays benign neglect. For example, the parent welcomes the knowledge transfer offering of the subsidiary, but fails to pay close attention to the detail of the explanation, for example the way in which

the subsidiary has to be particularly innovative in order to overcome localised challenges (Foss and Pedersen, 2002). As such, the parent fails to pay proper attention to the latent message in knowledge transfer, for example the potential for huge innovation, and instead considers the subsidiary to be contributing well, but offering little of additional value. Layers of bureaucracy in a parent firm which is likely to be larger than a subsidiary may also contribute to the situation, meaning that although those in direct receipt of the knowledge from the subsidiary at the parent firm recognise its value, they cannot progress the value of this knowledge further up the organisational hierarchy the parent firm.

As such, the literature concludes that there was quite considerable potential for unintentional barriers to effective RKT from the subsidiary to the parent, where there is an absence of social equity. The results displayed in Table 7.3 testing this hypothesis reveal mixed results. Specifically, there can be no support for this hypothesis when considering the relationship between social equity and the speed of knowledge transfer, where the value returned is (-0.049) and there is no statistical significance ($P = 0.626$). Whilst there appears to be a positive relationship between the existence of social equity and the motivation of the subsidiary to share knowledge (0.133), the effect cannot be considered statistically significant, as the P-value equates to 0.271 which is > 0.05 , typically considered to be the threshold of statistical significance.

TABLE 7. 3: RESULTS OF H3 TESTING

Path	Original Sample (O)	P Values	Confidence interval	
			2.50%	97.50%
Social Equity → Motivation	0.133	0.271	-0.123	0.359
Social Equity → Speed of Knowledge Transfer	-0.049	0.626	-0.239	0.158

Source: The researcher

Possible explanations for these findings can be offered through the lens of social equity theory, in as far as whilst there is positive evidence for a relationship of power between the parent and subsidiary, and also positive evidence for a relationship of trust shown in the findings testing for H1 and H2, it is possible that tacit barriers exist with regards to the mediating impact of social equity as influencing variable. Although it might have been anticipated that social equity would exist in the situation under examination in this study, there may be factors inhibiting the

positive influence of social equity. For example, there is no guarantee that the manager responsible for the subsidiary is in fact closely culturally and socially related to the parent firm, even though there is a strong likelihood of this being the case. It might also be the situation that as westernisation has become increasingly common in the GCC with younger generations of citizens from the GCC being educated overseas, these same individuals who are likely to be at least bilingual and multicultural because of their international education, are less likely to display the characteristics of social equity as the theory might predict.

It is also potentially the case that lack of shared cultural context is adversely impacting the effect of the mediating variable social equity. This suggestion is supported in the existing empirical studies which have revealed that misalignment in cultural context and understanding is often an inhibiting factor in effective RKT either because the knowledge from the subsidiary is dismissed by the parent as being in some way lesser, or because the knowledge does not translate effectively across cultural boundaries (Chen, 2004). Possible explanations for overcoming this situation are for either parent firms or subsidiaries to specifically employ individuals with direct experience of cross-cultural employment, or in other words these particular individuals have lived and worked in a variety of different cultural contexts. Although it might be anticipated that there is increasing possibility of employees and especially managers having international experience of this nature, the evidence captured through this testing suggests that such international experience is perhaps not as widespread as might have been assumed. Or, at the very least, even if there are cross culturally and internationally experienced managers in both the subsidiary and the parent, the impact of social equity is not enough to overcome some of the tacit barriers of RKT which have been previously documented.

Discussion of H4

H4 posits that *the relationship between the cultural similarities and differences of the parent and subsidiary firm are mediated by the mechanisms of knowledge transfer*. Or in other words, the way in which knowledge is transferred between subsidiary and parent is influenced by the mode in which knowledge is transferred. Literature on knowledge transfer, whether forward or reverse offers considerable discussion on the point that the mode of knowledge transfer such as remote, face to face, codified or tacit has a significant positive bearing on the efficacy of knowledge transfer whether forward or reverse (Hislop et al., 2018).

Instinctively, it is easy to accept that the way in which knowledge is transferred, has a positive and significant bearing on the effectiveness and efficiency of knowledge transfer. To frame this more simply, if there is a way of transferring knowledge quickly, and with confidence in the accuracy of the knowledge transfer, then it might be reasonably assumed that the content of knowledge transfer is more readily absorbed and acted upon. However, there is some counter discussion in literature which contravenes this suggestion, and, this contrary evidence would be consistent with research works such as that of Daniel Kahneman (2011) who argues that instinctively, human brains take the path of least resistance, what he refers to as quick thinking. In other words, if something sounds superficially as if it might be accurate, then the brain treated as a reasonable assumption. For more complex issues, Khaneman (2011) reveals that it can often transpire to be the case that the converse is true and it is argued that in this situation of RKT the mechanisms of knowledge transfer might in fact have little to no effect.

The reason for this suggestion is linked to the knowledge that without contextual understanding, knowledge typically has lesser meaning (Dhanaraj et al., 2004). Moreover, the lack of social equity or shared cultural understanding and experience also reduces the impact efficacy of knowledge transfer. Whilst it may certainly be possible to capture and codify knowledge, and present knowledge in written or visual form, the depth of meaning associated with this knowledge is lost, and it simply becomes information. Repeated examples of this occur in knowledge management literature when there is a lack of lived understanding or experience, which is illustrated when parent firms largely dismissed the contribution of subsidiaries in terms of their RKT (Driffeld et al., 2016). In common parlance, simply because the parent firm has never experienced a situation, they dismissed the possibility that the subsidiary might have done. This is a phenomenon not only apply to organisations but also readily witnessed in relation to people, and could well explain why even if knowledge is transferred in a variety of reliable formats, such as documented evidence, they can still be a refusal to accept the meaning of the knowledge and its implications.

As such, it can be suggested that whilst instinctively the codification of knowledge pursuant to knowledge transfer would be a positive mediating variable, it is suggested that in fact the practical reality is that this only occurs where there is direct shared cultural understanding (Easterby-Smith et al., 2008). For example, where the parent and subsidiary are in the same country or where there are very strong cultural links between the parent and the subsidiary. Where there is a broad cultural gap, even if knowledge is codified and shared using best practice, there can be no guarantee that meaning will be imparted to the knowledge, and

promptly acted upon. As the detail of Table 7.4 illustrates, within this particular study this situation was found to have manifested itself as the results of the test of whether the mechanisms of knowledge transfer support the efficacy of knowledge transfer, there was found to be no meaningful relationship. The results measured at 0.085 suggesting virtually no relationship, and there was certainly no statistically significant relationship as the P-Value was recorded at 0.612, well in excess of the traditional threshold for statistical significance of 0.05.

TABLE 7. 4: RESULTS OF H4 TESTING

Path	Original Sample (O)	P Values	Confidence interval	
			2.50%	97.50%
Mechanisms of Knowledge Transfer → Similarities between Parent and Subsidiary	0.085	0.612	-0.248	0.403

Source: The researcher

The implications of this finding are interesting, as they suggest that the modes and mechanisms of knowledge transfer, whether forward or reverse, appear to matter very little. This is certainly not to suggest that knowledge transfer should not take place, and nor is it to suggest that no effort should be made in the formal capture and codification of knowledge. What these findings do potentially suggest is that greater flexibility in the modes and mechanisms of knowledge transfer is unlikely to have any adverse impact, because there is very little positive impact to be undermined. To express this another way, knowledge transfer should certainly continue to take place but potentially on a more frequent ad hoc basis which is embedded in cultural norms and shared understanding which appear to be far more significant.

This finding also potentially points to opportunities for further investigation, given the number of studies which exist and have suggested that the modes and mechanisms of knowledge transfer are important or statistically significant (Dalkir, 2018; Lee et al., 2018). Potentially it may be the case there is something specific to the nature of R in this situation where the parent is in the GCC and the subsidiary is in a developed economy which in some way undermine or negate the necessity of particular approaches to RKT. At present this would be supposition, but it is interesting to consider why this aspect of the relationship of RKT appears to be less influential than might otherwise have been anticipated on the basis of existing literature and theory.

Discussion of H5

H5 posits that *the relationship between utilisation of knowledge and the speed of utilisation of knowledge is mediated by the existence of willingness to share knowledge by the subsidiary firm*. This can be more plainly expressed with the explanation that if knowledge offered by the subsidiary is trusted by the parent firm, then this same knowledge is likely to be transferred from the subsidiary more quickly, and, also acted upon (i.e. exploited) in order to secure competitive advantage for the parent firm. The foundations of this hypothesis drawn from literature and represent the discussions around the explanations of the tacit factors which link the value of knowledge to sustainable competitive advantage (Ambos and Ambos, 2009).

It is typically assumed to be the case in literature that organisations expand internationally because they perceive that there is some form of gain to be achieved through international expansion (Ambos et al., 2006; Miesing et al., 2007; Lee et al., 2018). It is reasonably assumed to be the case that such gains will be financial through increased sales, and also a larger target market. It is also the case that potentially such expansion leading to competitive advantage is somewhat defensive in its approach. To put this another way, the simple act of occupying a portion of an overseas market prevents or limits competitor activity, and thus whilst the international subsidiary may not be especially profitable, at the very least there are other forms of gains such as whole control of market share, and also potentially valuable knowledge of the way in which overseas markets are developing. It is from this latter point that scholars such as Noorderhaven and Harzing (2009) and also Burmeister et al., (2015) suggest that parent organisations can secure competitive advantage through insights into overseas markets. Potentially even using their subsidiaries as a means to obtain insights into competitor activity in these same regions.

However, the fundamental premise of this proposition, is that the parent firm trusts the knowledge which is provided by the subsidiary, and, crucially, this knowledge is both provided by the subsidiary promptly, and is also acted upon promptly by the parent firm. As such, it was hypothesised in this study that there ought to be a relationship between trust and willingness to share knowledge, and speed and subsequent utilisation of knowledge by the parent firm to secure competitive advantage. For example, on the basis that knowledge represents a valuable competitive resource, prompt action on the basis of knowledge ought to be up to secure first entrant advantage to particular parts of the market. However, as the detail of Table 7.5 below reveals, the evidence captured and analysed in this study does not support this hypothesis and there is virtually no evidence of a relationship between the willingness to share knowledge and

subsequent evidence of knowledge utilisation by the parent (0.07). Further, much the same can be said of the anticipated relationship between willingness to share knowledge by the subsidiary, and subsequent speed of knowledge transfer (0.039). Moreover, in both instances there was no evidence of statistical significance, with respective P-values of 0.691 and 0.833.

TABLE 7. 5: RESULTS OF H5 TESTING

Path	Original Sample (O)	P Values	Confidence interval	
			2.50%	97.50%
Willingness to Share Knowledge → Evidence of Knowledge Utilization	0.07	0.691	-0.238	0.464
Willingness to Share Knowledge → Speed of Knowledge Transfer	0.039	0.833	-0.312	0.394

Source: The researcher

In considering why these results may have been returned, there are a number of possible explanations which can be drawn from existing literature and also theoretical insights. In the first instance, whilst it might be reasonable to assume that there is a willingness on the part of the subsidiary to share knowledge back to the parent, evidence of the subsequent utilisation of knowledge, and its ensuing relationship with competitive advantage might be undermined due to factors beyond the control of both the parent and subsidiary. In literature, Mellahi et al., (2011) posit that even assuming that the knowledge is successfully transferred and understood in the manner in which it was intended, for various reasons the parent firm cannot act upon this knowledge as quickly as they might wish. There may be practical impediments such as resource constraints, or difficulties in adapting the knowledge to suit either parent market, or potentially the activities of other subsidiaries within the group (assuming they exist).

To provide an example, in different parts of the world different national governments and regulatory bodies place restrictions on certain types forms of business activity. Thus, GCC parent firms which are highly likely to be subject to the requirements of Sharia finance, find that they are unable to act on knowledge offered by the subsidiary, because the tenants of sharia finance explicitly, or implicitly forbid such opportunities. This could well be particularly prevalent in developed economies where there are burgeoning financial services sectors which rely heavily on complex and high-risk financial products, which would, under sharia finance be regarded as *haram* (forbidden) (Elamer et al., 2019). Whilst it may well be the case that the

subsidiary offers extremely valuable knowledge as to the state of the market potential opportunities in their country of location, and, the parent firm has the resources to act on this knowledge, the social and cultural factors actually prevent or very much inhibit the parent acting on this knowledge. It appears to be the case that there is relatively little research which has explored this practical consideration, and so barriers preventing the parent firm acting on knowledge shared the by the subsidiary could be a novel extension to this research project.

Offering another contemporaneous explanation of why parent appears not act on information and knowledge provided by the subsidiary, there could be other unforeseeable macroeconomic limitations. Whilst an extreme example, the Covid-19 pandemic currently sweeping the world at the time of writing this chapter, has undeniably changed the strategic plans of a great many organisations around the globe. Whilst the Covid-19 pandemic is the first such pandemic in living memory to have significantly affected developed economies, the last 20 years have seen a number of pandemics in emerging and developing economies, such as SARS and Ebola which had similarly disruptive localised effects. As such, it may well be the case that even though knowledge is shared effectively between subsidiary and parent, where the parent is located in a developing or emerging economy, it is actually the case that macroeconomic factors inhibit the parent firm from acting on their newly acquired knowledge in any meaningful way. Again, this appears to be area which has been lacking in detailed longitudinal research but could well provide a practical explanation for the apparent lack of action on the part of parent firms whom, it would be anticipated, be more willing to act upon knowledge with which they have been provided.

Discussion of H6

The final hypothesis, H6 theorised that *the relationship between the value placed on knowledge by the parent firm, and subsequent evidence of competitive advantage is mediated by the types of knowledge (i.e. explicit and tacit) which are transferred*. In other words, what this hypothesis was seeking to understand, is whether there is a more competitive advantage to be obtained from formally codified explicit knowledge, i.e. explaining organisational processes or transferring knowledge about quality control, as compared to informal, tacit knowledge which, is recognised in literature as being extremely valuable but markedly more difficult to identify conceptualise, and meaningfully transfer (Dalkir, 2018). Not least of which because

cross-cultural barriers and unintentional absence of social equity can significantly inhibit this process (Fong-Boh et al., 2013).

As part of this area of literature it is also suggested that the extent which the parent firm values are different types of knowledge could also have some degree of influence in respect of the effectiveness of knowledge transfer and ensuing positive outcomes in terms of organisational activity and advantage. Therefore, it was unsurprising to find that when testing this hypothesis, (results displayed in Table 7.6) it can be seen that there is a significant positive effect contingent upon the type of knowledge shared and speed of knowledge transfer with a value of 0.298 and a P-value of 0.008, which can be considered as strongly statistically significant.

TABLE 7. 6: RESULTS OF H6 TESTING

Path	Original Sample (O)	P Values	Confidence interval	
			2.50%	97.50%
Type of Knowledge Shared → Speed of Knowledge Transfer	0.298	0.008	0.069	0.508

Source: The researcher

And, in light of this result it is worthwhile spending some time on picking the nuance between the type of knowledge transferred (i.e. explicit or tacit as tested in this hypothesis), where a significant positive relationship has been found as compared to the findings of H4 whereby what it was anticipated that the mode of knowledge transfer, i.e. codified or informal would be important, the results show that this was not statistically significant relationship. The reason that this is worthwhile considering in more depth, is that often in parts of literature, informal modes of knowledge transfer are conflated with tacit knowledge for understandable reasons. Tacit knowledge is quite realistically likely to be transferred in an informal way, through ad hoc conversations, or through employees observing one another performing particular tasks and leaning knowledge or insights from these activities.

However, there is a technical difference between informal modes of knowledge transfer as compared to tacit knowledge (Hislop et al., 2018). Tacit knowledge can present on a continuum, in as far as the individual in possession of the knowledge may not even realise that they have the knowledge - occasionally referred to as a state of unconscious consciousness, or performing a task on autopilot (Sveiby, 1997). Conversely, an employee may be perfectly well aware that they are in possession of valuable tacit knowledge, such as the nature of particular

relationships between powerful employees in organisation, or powerful social connections which are valuable to the organisation such as links with influential regulatory bodies, customers and suppliers. Therefore, it is both necessary and indeed worthwhile to parse with some care the types of tacit knowledge that an individual, and/or an organisation may well be in possession of.

Thinking about the situation from the state of subsidiary organisations in developed economies, as compared to parent firms in developing economies, it is possible that from a strategic perspective the parent firm may have decided to acquire or heavily invest in the subsidiary precisely because it is known that the subsidiary has this type tacit knowledge. Influence with the regulator, or with the current government administration through lobbying or personal would be examples of such hugely valuable tacit knowledge, which would never be formally codified. Similarly, there could be value in the physical location of the subsidiary in close proximity to other hubs of knowledge - an extension of Porter's (cited in Porter and Stern, 2001) *Cluster Theory*.

It is tentatively suggested on the basis of these findings that it is the **type** of knowledge more so than its mode which matters in terms of perceived value in RKT. This would be a logical interpretation on the basis that in more straightforward cases of forward knowledge transfer, and subsequent reverse from a subsidiary in a developing economy to a parent in a developed economy it is quite often the case that the parent is seeking valuable localised knowledge which they cannot otherwise readily access. As alluded to previously in discussions in this chapter, it is not unusual for national governments or regulatory bodies to place restrictions on certain dimensions of international expansion by firms. At national level governments can and do insist on some level of localised ownership in terms of shareholding, intervention and assets (Hussein, 2009). And even at economic bloc level, certain mergers and acquisitions have been intervened, whereby regulatory bodies perceive that they could be anti-competitive activity at play. Valuable tacit knowledge held by subsidiaries is therefore an important commodity in organisational transactions and strategy which arguably merits closer attention and would be recommended important consideration in evaluating the efficacy of knowledge transfer between parent and subsidiary regardless of their respective geographic locations.

7.2 Discussion of Results in Light of Literature

7-2-1 Power and Culture

This research posited that organisational power and culture were significant antecedent variables with regards to the factors contributing to knowledge transfer, a view which has been strongly supported in literature over a number of years. More recently, as research attention has turned towards RKT where the parent is in a developing country and subsidiary in a developed nation, there has been closer scrutiny of the role of power and culture in knowledge sharing, both forward and reverse. There has also been emergence of mixed evidence with regards to the role of power and culture as to whether this combination of factors helps or hinders in terms of facets of knowledge transfer. For example, the work of Ciabuschi et al., (2017) demonstrating that power or control through political regimes (in China, well recognised as rapidly developing economy), made it statistically more likely that parent firms would not share knowledge, a view also supported in the study of Su et al., (2020). However, on the other hand the collective work of Nair et al., (2015; 2016; 2018) offered an entirely contradictory view suggesting that in India, another rapidly developing economy, the converse was true, and that the parent would happily and willingly share knowledge with the subsidiary, receiving significant knowledge benefits in return. Both contrasting views confirm that power and culture play a significant role, albeit the outcomes are markedly different.

Within this study, power and culture were found to be statistically significant factors, directly influencing the efficacy of RKT on a number of measures. These included, the efficiency of knowledge transfer, action on the basis of knowledge by the parent wants the knowledge had been transferred, evidenced in the use of knowledge utilisation, and also strong motivation to share knowledge as well as speed of knowledge transfer linked to the cultural similarities of the parent and the subsidiary. It can therefore be argued that within the context of this thesis they can be support for the interpretation of the critical role of power and culture in the efficacy of knowledge transfer. Throughout this thesis it has been the position that there are aspects unique to the culture of GCC-based firms particularly in terms of organisational hierarchy, (a proxy for power) and the interrelationship of national/regional culture and organisational culture, which directly impact or influence RKT. On the basis of the findings of this study, it can be suggested that there is confidence in asserting that there is within the GCC based, positive relationship between power culture and subsequent engagement in the knowledge transfer process.

Accordingly, the findings of the study can be said to unequivocally support existing views and evidence that power and culture influence knowledge transfer. Further, given the strength of the finding in relation to the coefficient in the hypothesis testing it can be suggested that within the context of this study, power and culture are particularly important influencing factors. This would support the overall population of this research that there are aspects unique to the culture of GCC headquartered multinational firms.

7-2-2 Trust, Social Equity and Willingness to Share

Similarly, to research into the impact of culture on knowledge transfer within multinational organisations, the variables of trust, social equity, and willingness to share all found to be statistically significant. Both theoretical discussions and numerous empirical studies have revealed the importance of this combination of factors supporting the efficacy of knowledge transfer in varying dimensions. These three factors are presented in conjunction with one another, because they are found to be closely interrelated. Although some scholars have argued that trust and social equity are virtually interchangeable as variables, in this study they have been treated independently, with trust being the precursor of both social equity and willingness to transfer. Consistent with literature such as that of Oh et al., (2016), Peng et al., (2017) and Kong (2018), trust is found to be one of the most important factors in determining a willingness to engage in knowledge transfer, and also a precursor to the existence of social equity, where there is some degree of perceived parity between the parent and the subsidiary in terms of the contribution made to organisational strategic outcomes. This study found a strong significant relationship between trust and willingness to share knowledge, which is consistent with literature, and would also support the proposition of this study that there is a significant bond of trust between parent and subsidiary because of the cultural norms of the GCC.

However, when examining the relationship between social equity and willingness to share, the results of the study found no statistical significance. Whilst there was relationship between social equity and motivation in that there is a positive relationship was not sufficient be considered statistically significant. Evaluating this finding within the framework of literature, Peltokorpi and Yamao (2017), Ai and Tan (2002) and Lui and Meyer (2020) presented evidence in support of the role of social equity the cursor to effective knowledge transfer. Social equity as described by Peltokorpi and Yamao (2017) is treated by a shared strategic understanding, which when the parent shares the strategic direction and detail of this with the

subsidiary firm, this increases social equity and this strengthens aspects of knowledge transfer. Lui and Meyer (2020) reached similar conclusions with regards to the notion of boundary spanners, i.e. those individuals unique to the organisation who have social capital in both the parent firm and the subsidiary because they are equally respected in both parts of sides of the organisation - finding very similar to that of Kong (2018) although he concentrated on trust specifically. Social equity was also found to be an important consideration in the work of Ai and Yang (2020) with regards to acquisition and it might be suggested that the work of Peng et al., (2017) also emphasised the importance of social equity in terms of the respective age of the parent and the subsidiary.

That no clear findings to this effect were found within the results of this research indicates that there is a distinction between trust and social equity, thus supporting the discussions which recognise the difference between the two concepts. Moreover, that there was some positive evidence of social equity and motivation and willingness to share, but not enough to be statistically significant, does tend support the overall direction of this sect variables and also be arguably consistent with common sense in as far as individuals and organisations are more inclined to share knowledge when they believe that there is likely to be a positive outcome from so doing, i.e. there is mutual respect and trust between the parties.

7-2-3 Modes and Mechanisms of Knowledge Transfer

Najafi-Tavani et al., (2012; 2015) and Peng et al., (2017) variously gave consideration to different dimensions of how knowledge is transferred between subsidiary and parent, and whether an array of demographic factors influence the efficacy of knowledge transfer in these circumstances. Extending aspects of trust, social equity and willingness, Najafi-Tavani et al., (2012; 2015) found that unsurprisingly when the subsidiary feels that they are trusted and have delegated authority in the form of autonomy then they are statistically more likely to share more knowledge, and is a more quickly. There is also some evidence to suggest that contextualisation of knowledge and additional value, but this is framed within external and internal embeddedness and socialisation mechanisms of knowledge transfer. In other words, not only is there formal knowledge transfer such as the capture and codification of knowledge, the informal socialisation mechanisms are equally important and stem from a relationship of trust between parties similar to the notion of boundary spanners as discussed by Lui and Meyer (2020).

Peng et al., (2017) and Fu et al., (2018) found evidence in support of the necessity of formal and informal mechanisms of knowledge transfer in partnership, in part contingent upon the respective age of the parent in the subsidiary, and the choice of strategic penetration method. In other words, had the parent firm establish the subsidiary for themselves (in which case knowledge transfer is more likely), or was the subsidiary acquired (in which case they could be some negative impact in terms of knowledge transfer). In any event, the literature strongly suggests that the preexistence of formal mechanisms of knowledge transfer in conjunction with informal mechanisms engendered through social capital/social equity are important.

The findings of this study differ in this regard, offering no evidence in support of the view that formal and informal modes and mechanisms of knowledge transfer are important in terms of the efficacy of knowledge transfer in this context. It is suggested that one possible explanation for this situation is because of the extremely strong relationship of trust linked to the culture of the organisation then it is perhaps not as necessary to have such structured mechanisms, or perhaps they are not perceived by employees within the organisation's as being as important because the culture would be to share the information in any event. Further research into this dimension would therefore be recommended in order to evaluate why such formal mechanisms may not be necessary. It could also potentially be the case that because some of the organisations included within the population sample were quite young, as were the subsidiaries, there has been little opportunity to formally establish mechanisms of knowledge transfer, meaning that in fact knowledge is transferred quite freely but the mechanisms for so doing are not proactively recognised by the individuals concerned. As such, the findings of this thesis cannot be said to actively support the interpretation and necessity of formal mechanisms of knowledge transfer, although the reasons for this cannot be clearly stated.

7-2-4 Value of Knowledge

Peng et al., (2017), Fu et al., (2018) and Nair et al., (2018) and Ai and Tan (2020) have all demonstrated that the perceived value of knowledge is an influencing variable with impact the way in which parent sets about acquiring knowledge from subsidiary. Further there is greater complexity in the relationship of the value of knowledge, because they can be differing perspectives of the part of the parent and the subsidiary is the extent to which knowledge itself is considered to have value. Historically, there was some evidence to suggest that parent firms adopted a somewhat paternalistic attitude to knowledge transferred from subsidiary is (e.g. the

work of Yang, 2008), meaning that the parents did not particularly value or appreciate the knowledge transfer from the subsidiaries. Further, the subsidiaries came to recognise this seeming state of indifference towards the knowledge, and so this unsurprisingly limited the extent to which subsidiaries would share full and frank knowledge in a timely manner.

However, as the more recent studies detailed in the previous paragraph reveal, when the parent firm is in a developing economy it becomes clear that there is more value placed upon the knowledge from the subsidiary. Differing explanations are offered for this in the literature, such as the work of Peng et al., (2017) who contend that there is strategic value associated with the knowledge, particularly when the subsidiary has been established on the part of the parent in order to gain a foothold in the country. In the circumstances, the knowledge is especially prized finding also reflected in the work of Fu et al., (2018) although they contended that it was when the subsidiary and the parents were of similar age is a more important influencing variable, and when there were relatively close cultural ties. Conversely, Nair et al., (2018) argued that the parent firm was seeking to create innovative knowledge through collaboration, an entirely different slant placed on the value of knowledge, and one which they demonstrated existed, when there were specific cultural norms present in the parent, and active belief in sharing knowledge. A different view again was offered in the work of Ai and Tang (2020) where they are effectively contended that parent firms would 'buy' knowledge through acquisition, and were not interested in a collaboration of knowledge, or indeed the development of knowledge.

In this study, statistically significant findings revealed that in keeping with more contemporary studies, the parent firm does place value on the knowledge held by the subsidiary, evidenced in the speed of transfer the knowledge, and also the speed at which the parent firm then acts upon the knowledge using to secure competitive advantage. Installation therefore it can be suggested that collectively, power and culture significant influencing factors on reverse knowledge transfer, as are, trust and willingness to share knowledge, and the value placed on knowledge by the parent firm. This creates a unique combination of factors which supports the overall supposition of this work that there are aspects significant to GCC based parent firms which mean that GCC based parents set about managing and supporting knowledge transfer from the subsidiary is in a distinct way. The following and final chapter, concludes the study, drawing together these distinct strands of discussion and presenting the core contribution of this research in terms of theoretical and empirical findings and suggestions for further research.

7.3 Conclusion

This chapter has presented the findings and results from testing the hypotheses on the dataset, with the development of hypotheses been described in detail in **Chapter 4.0**, and the collection of the dataset and subsequent analysis and testing described in detail in **Chapter 5.0**. Within this chapter, the introduction and overview of the study has been refreshed and the steps taken to develop hypotheses have been re-summarised and contextualised against the purpose of this study to explain why testing these particular hypotheses with this particular dataset can be considered as a valuable contribution to the state of knowledge.

The findings having tested the six hypotheses reveal mixed results, with strong support for H1, H2 and H6, and a lack of support for H3, H4 and H5. Collectively the results suggest that there are strong relationships and mediating variables where organisational power is evidenced, and particularly where there is trust between a parent and subsidiary on a reciprocal basis. The existence of these factors strongly and positively influences the nature of the relationship which influences and informs RKT with positive effect. Furthermore, the type of knowledge transferred, i.e. codified or tacit is also an important factor, evidenced in the testing of H6 which revealed a strong significant positive relationship between the type of knowledge shared and the speed at which this knowledge is shared. In turn this can be treated as a source of potential competitive advantage, provided that parent firms act upon this knowledge promptly.

With regard to the three hypotheses where there was insufficient support to accept these hypotheses, consideration has been given to why this may be the case. The absence of a relationship between social equity and willingness of subsidiary to transfer knowledge could potentially be explained by an absence of social equity or unintentional cross-cultural confusion, particularly when there is a significant difference between the national cultures of where the parent is located, and also where the subsidiary is located. So this may fact not be lack of willingness to share the knowledge, but instead an inability to the knowledge to be 'translated' out of context. In respect of the modes of knowledge transfer, it was an unanticipated finding that this was not particularly influential relationship, as some literature in this area suggest that there is a stronger positive relationship between the way in which knowledge is transferred and subsequent knowledge transfer outcomes. For example, it would be expected that face-to-face transfer would be more powerful. The lack of apparent evidence of this relationship can in some ways be considered useful, particularly if in the future there is likely to be a diminishing of physical movement of people around the world, and instead a greater reliance on remote forms of communication.

Finally in respect of the absence of a clear relationship between subsidiary firms being willing to share knowledge, and parent firms promptly acted upon this knowledge, it is potentially suggested that there are either practical or tacit barriers which might be inhibiting the willingness or capacity of the parent firm to act upon the knowledge provided by the subsidiary, this potentially inhibiting the opportunity to generate sustainable competitive advantage. One example offered as a possible explanation was that even if a subsidiary in a developed economy highlights a valuable financial investment opportunity, the requirements of sharia finance under which most GCC parent firms are likely to work well inhibit the opportunity for the parent to exploit this knowledge. It has been suggested in more detail of discussions in this chapter that greater research into practical and tacit barriers preventing parent firm exploiting knowledge would be worthy of more detailed consideration. The discussions are built upon to inform the final chapter of the study, **Chapter 8.0** which concludes the overall research, drawing together all of the strands of this discussion and presenting recommendations.

CHAPTER 8: CONCLUSIONS AND IMPLICATIONS

8.1 Contribution of the Study

This research set out to investigate the mediating effect of specific variables on the efficacy of reverse knowledge transfer from subsidiary to parent organisations. The unique focus of this study has been to evaluate RKT whereby the parent firm is in the GCC, and the subsidiary is in a developed economy. Until relatively recently, the vast proportion of literature and research into dimensions of RKT assumed that the relationship between parent and subsidiary would function where the parent was in a developed economy, and the subsidiary was in a developing or emerging economy. It is only as the rate of growth in developing economies has begun to plateau, and developing and emerging economies have seen accelerated economic growth, that a relationship of a parent being in an emerging/developing economy and the subsidiary being in a developed economy has become more prevalent.

The reversal of fortunes with regards to developed and developing economies in terms of internationalisation and growth opportunities, has thrown up a novel aspect to research into RKT. Again, historically it is typically been the case that parents in developed economies seeking market penetration opportunities, perhaps because they can identify an arbitrage opportunity in terms of particular resources, or because they perceive that they can obtain first entrant advantage or defensive position by establishing or acquiring subsidiary in a developing/emerging economy. When the situation is reversed, and the parent is in the developing/emerging economy and the subsidiary is in the developed economy, it is tentatively posited that the nature of the relationship is a subtly different. Rather than the parent having an attitude of benevolence towards the subsidiary, such as that reflected in the work of Yang (2008), it appears to be the case that the parent is much more actively interested in aspects of knowledge because these aspects of knowledge can be used to accelerate and in some instances leapfrog growth opportunities in developing/emerging economies.

Recent evidence also shows that when the parent is in a developing/emerging economy such as the GCC, there are two distinct factors which are of relevance in terms of acquiring or establishing subsidiaries in developed economies. The first is the parent is likely to have substantial financial resources, which are actively welcomed by organisations in developing economies which have seen flatlining growth for the last decade. The second is that parents in developing/emerging economies such as China, India and the GCC particularly appeared to display the characteristic of very aggressive international growth. By Western standards these

acquisitions and other forms of international penetration are considered to be high risk, but, it does appear to be the case that there are distinct characteristics associated with this aggressive internationalisation strategy which underpinned the rationale for acquiring or establishing a subsidiary, and particularly the knowledge of intangible assets that the parent is seeking.

The unique proposition this research has been that for GCC organisations particularly, there are specific assets of organisational and national culture which are relevant to the way in which RKT takes place. This aspect of organisational and national culture intertwined, stemming from the work of Hofstede demonstrates that in much of the Middle East, there are strong bonds of traditionalism, which directly tied into organisational structure and cultural norms. In plain terms, a robust organisational hierarchy, and also strong reliance on sociocultural ties. In much of the Middle East sociocultural bonds are referred to as ‘wasta’, which can be loosely translated as a form of social capital or social equity but one which has specific implications in the Middle East in terms of the way in which family trust and loyalty is a significant influence on business transactions. It is posited in this study, that because of the prevalence of these social ties, GCC parent firms are more likely than any other culture to utilise family members within subsidiaries in order to have a direct link to the subsidiary and an insight into subsidiary activities.

In contrast, where Western firms might send expatriate employees selected on the basis of perceived calibre, GCC firms are more likely to send trusted family members. This research makes no observation of whether one mechanism for selecting international employees is better than another, but it does suggest that there are likely to be sociocultural bonds which are more prevalent and thus more influential in the relationship of RKT than in other similar knowledge transfer situations. Whilst this point may have been extensively explained, it is argued as the entire foundation of the study, in that the existence of these sociocultural bonds strongly informs the subsequent mediating variables which are shown to impact the nature and efficacy of RKT from a subsidiary to parent. To express this plainly, it is argued in this thesis, that when the parent is in the GCC they are a) more likely to send a family member to be directly involved in the subsidiary, and b) the presence of a family member in the subsidiary has a direct positive impact on RKT which ultimately gives the parent firm significant competitive advantage.

From this basis, it has been argued in this study that mediating variables which thus influences the nature of RKT include, to a greater or lesser degree, power, in the sense of a power relationship between the parent and subsidiary; culture, which is specific to GCC based firms,

trust between the parent and the subsidiary stemming directly from the sociocultural bonds; social equity which mutually reinforces the notion of trust, and also the notion of power between a parent and the subsidiary. Further, the existence of trust and social equity accelerate the willingness of subsidiary to engage in full and frank knowledge transfer which supports the speed at which the knowledge is transferred. Further, it is considered that mechanisms of knowledge transfer within the context of this relationship have mediating impact, along with cultural similarity and between the parent and subsidiary in the sense that when there are close sociocultural ties, it is easier to ‘translate’ the knowledge from the subsidiary to the parent taken out of context. Furthermore, it is considered that formal mechanisms of knowledge transfer also accelerate support the process.

Ultimately, in combination these mediating variables directly and positively impact upon the efficacy of RKT from subsidiary back to parent in the GCC. That the knowledge is transferred quickly, in full and is contextually explained and, that the parent values the knowledge provided by the subsidiary act upon the knowledge promptly, ultimately gives the parent firm in the GCC a competitive advantage. In isolation, these mediating variables are insufficient to explain what is argued as the unique nature of this relationship. Instead, it is the combination of these variables in conjunction with one another, which ultimately leads to the parent firm in the GCC securing competitive advantage on the basis of the knowledge that they have acquired. Furthermore, because the GCC parent actively set out with a strategy of acquiring knowledge in order to better understand global markets and the actions of competitors, the GCC parent acts promptly on the knowledge, and values the knowledge rather than treating knowledge with a form of benevolence typically evidenced in the literature. It is argued that this is a unique insight into the nature of RKT between parent and subsidiary firms, when the parent is in the GCC and the subsidiary is in a developed economy.

8.1.1 Theoretical Contribution

Within the literature on knowledge transfer and particularly RKT, a number of theoretical explanations are proffered for the functionality of RKT and also some of the perceived barriers of RKT. The first and most fundamental of these theoretical explanations relates to the willingness of subsidiaries to share their knowledge. As studies such as Oh and Anchor (2017), and Su et al., (2020), subsidiaries cannot be compelled to share knowledge, even if fully robust mechanisms for knowledge transfer exist, and organisation has a clear process of knowledge

capture, codification and subsequent dissemination. The reason is that subsidiaries might withhold knowledge, deliberately or unintentionally considerable, collectively represent a significant explanation for why there may be a lack of willingness to engage in knowledge transfer.

Addressing deliberate withholding of full or partial knowledge first, Oh and ang (2016) hold that one explanation is found in the fact that subsidiaries perceive themselves to be in some way lesser, making them resistant to knowledge transfer because they perceive that their knowledge is not valued. Perceptions of why the subsidiaries might be lesser vary from a difficult acquisition or poor establishment in the first instance. Also, evidence that the knowledge is not put into use by the parent firm even after it has been supplied, and, evidence that the parent firm effectively 'steals' knowledge without due credit, pouring resources back into the parent firm with knowledge, and allowing the subsidiary once it has been plundered of knowledge, to struggle. Ai and Tang (2020) also suggests that when the parent firm pits subsidiaries against one another as part of the competitive cultural environment, this can sit uneasily with subsidiary branches around the world, and they will refuse to engage in the process. Yang (2008) also suggests that some parent firms treat their subsidiaries with a benign indifference, periodically collecting knowledge which showing very little interest in the achievements of the subsidiary firm.

There can also be tacit or unintentional reasons that subsidiaries failed to share knowledge. For example, a lack of contextual understanding. Whilst a great deal of international business takes place, continued research reveals enduring misunderstandings between national cultures which manifest themselves in many different ways. Simple examples include a failure by organisations to appreciate which products and services will sell effectively in different countries because of sociocultural norms and habits. Likewise, a failure to appreciate practical impediments - for example to what extent does a country which has a large amount of desert, understand about the nature of winter and vice versa. The sound very simplistic practical impediments but revealed the critical importance of assumptions about sociocultural norms habits and behaviours. The implications of these are critical for RKT, because it can lead to unintentional missions in terms of seeking information from subsidiary firms, and also accurately contextualising this information.

Building on this, **the first theoretical contribution of this study** is it demonstrates that when there are close ties of social equity between the parent and the subsidiary, it is possible to

contextualise the knowledge more effectively, and thus generate greater value from the knowledge. It is argued in this study that what has been found is demonstrable evidence of the fact that tacit barriers to RKT can be overcome when there is social equity, which, it is argued is unique to the nature of the characteristic between the parent and subsidiary, using the conduit of social ties stemming from power and culture. As other studies have shown, the tacit barriers to RKT have the potential to be considerable, and ultimately undermine the entire purpose of international knowledge transfer in the first instance. By being able to capture and effectively transfer this knowledge because it can be contextualised to social ties, this offers unique potential for competitive advantage, and offers a theoretical explanation for how tacit barriers to RKT might be overcome.

A second theoretical explanation for factors supporting and potentially undermining the efficacy of knowledge transfer, both forward and reverse, is evidence of trust between a parent and the subsidiary. Work conducted by scholars such as Levin and Cross (2004) and Kong et al., (2018) demonstrate the critical importance of a relationship of trust in order for there to be both a willingness to share knowledge, and also the actuality of sharing knowledge. As can be reasonably inferred from the preceding discussions, simply because there is a willingness to share knowledge, this does not actually mean it takes place, as indeed both practical and tacit barriers might well exist. Furthermore, for any organisation, or indeed individual to share something of value, there must be some perceived relationship of trust between the parties. It is argued in theory, and also in this study, that trust is a significant mediating variable on knowledge transfer particularly from the subsidiary to the parent, and empirical studies appear to support this interpretation.

Within this study, trust was argued from a theoretical standpoint, as being a significant mediating variable likely to impact varying dimensions of the RKT relationship. Not only is trust necessary as an antecedent element, in that there must be some form prior existing relationship of trust to even engage in knowledge transfer in the first instance, trust must be maintained ongoing, and the parent must also trust the value the knowledge received from the subsidiary as a means of securing some form of competitive advantage. To express this another way, the parent must also trust that the subsidiary provides useful or valuable knowledge, and, that the knowledge is complete in as far as the subsidiary is aware. Trust is therefore a far-reaching aspect of effective RKT, because as previously discussed, they can be practical and tacit factors which inhibit the willingness to engage in knowledge transfer, and trust can inform these factors in a symbiotic relationship.

To examine the contribution of trust from another perspective, it is reasonable to suggest, that in the absence of trust between a parent and subsidiary, the efficacy of knowledge transfer will be at best minimal. This is not to say that knowledge transfer will not take place, because the parent can to some extent force subsidiaries to provide some knowledge through the threat of reprisal or repercussion if no knowledge is forthcoming. However, knowledge acquired under duress is highly unlikely to be useful. Quite understandably, any person or organisation placed under duress to reveal knowledge is unlikely to do so willingly and is already extensively discussed willingness is a critical component of the efficacy of RKT. Moreover, knowledge acquired under duress may well be admitting key elements, which might be contextual and contain the greatest elements of value. Furthermore, knowledge obtained under duress could well be lacking in timeliness, which from a competitive advantage standpoint is likely to be quite important particularly if direct competitors already operating in the market space and acquire and utilise the knowledge first. To this end, it is reasonable to conclude on the basis of theoretical explanations at least, that trust is a critical element of effective RKT.

The second theoretical contribution of this study functions with regard to the role of trust in RKT when the parent is in the GCC and the subsidiary is in a developed economy, is that trust is critically important. Furthermore, as discussed previously, because it is held in this research that there is a unique aspect to the relationship where there are specific sociocultural ties, there is a deeper bond of trust which serves as the more powerful mediating variable. It is therefore offered from this research that trust is a crucial factor in the efficacy of RKT in this context, and, additionally, a greater bond of trust is present because of the social capital and social ties which are uniquely engendered because of the culture of GCC firms. It is further offered as a theoretical contribution this research, that GCC firms are more likely to engender this level of trust than firms headquartered in developed economies and, this relationship of trust is likely to cascade down and influence other aspects of the RKT relationship.

The third factor argued, in theory, as having a significant impact on knowledge transfer, is context. This is a reasonable theoretical proposition on the basis that knowledge can only be acquired through context (Rabbiosi and Santangelo, 2013), meaning in turn that without an appreciation of the context of knowledge acquisition and also knowledge generation, it is quite likely that some of the value of the knowledge will be lost in transfer and subsequent interpretation. This again ties to the unique proposition of this research, that because of the specific relationship between the parent and subsidiary when the parent is GCC based, there is

a conduit of knowledge which makes it easier for the GCC firm to appreciate the context of knowledge and thus acquire greater value.

Plentiful existing theoretical discussion has established the importance of context in knowledge transfer, and so too has the existing empirical investigation. A seminal work of N&T (1995) revealed the importance of context in both acquiring knowledge, and also embedding and then going on to generate knowledge. Similarly, work conducted in entirely different fields such as that of reflective practice and learning has also established that knowledge is contextual meaning that without appreciation of the context in which the knowledge was acquired, the knowledge is likely to lack meaning, or alternatively be endowed with greater meaning than its necessarily appropriate. Again to examine this theoretical supposition in the alternative perspective, one possible explanation for why parent firms can appear to be somewhat indifferent toward the knowledge presented by the subsidiary is, is that to the parent firms, the knowledge is not novel particularly useful on the basis that the context is more advanced than that of the subsidiary.

When the subsidiary is in an emerging economy, perhaps lacking significant infrastructure, this might be an appropriate interpretation. However, it can also be identified in discussions in the literature, that in the process of having this benevolent attitude, some facets of the knowledge of lost. The nuance of such knowledge is likely to stem from the fact that because firms in developing and emerging economies are likely to have reduced infrastructure, there is a strong possibility of greater creativity and innovation albeit at micro level. In plain terms, employees organisations are used to finding workarounds, meaning their application of knowledge is lateral rather than linear in terms of development. , Parent firms have a paternalistic and benevolent attitude towards this knowledge, they may lose some of the value of understanding how cultural norms operate, and thus how there is opportunity of knowledge exploitation in order to secure competitive advantage.

These are just some examples of why context is particularly important within knowledge transfer and subsequent interpretation. In other words, not only is the knowledge itself important, an appreciation of the context of the knowledge is important to understand the knowledge is used and how it might be applied differently, thus creating innovation, or exploited because of its application in a different context. Plentiful cross-cultural research reveals that the nuances of cultural transfer appreciation of lost, because a lack of contextual understanding. In a best-case scenario this results in simple misunderstandings, but in a worst-

case scenario can result in unintentional offence, and even valuable knowledge being lost because the context is not appreciated or understood. This is reputedly discussed in theoretical explanations of why there may be limitations in the subsequent value of exploiting knowledge in order to secure competitive advantage.

Extending these discussions, **the third unique theoretical contribution of this thesis** is that because the parent subsidiary relationship specific to the GCC parent firm, the GCC firms are in a unique position to contextualise their knowledge. They typically benefit from a conduit of knowledge transfer through social ties, and also through a quirk of history and policies of accelerated modernisation which typically involve sending an entire generation of countries such as Saudi Arabia to be educated overseas. The purpose of this national strategy was to accelerate the knowledge of countries generally, and also equip future generations of the business leaders of tomorrow, with a deep understanding of international business transactions. No other country engaged in this to the same extent, which creates a unique explanation for why parent-subsidiary relationship within the context of the GCC is different, and thus creates unique contextual understanding of knowledge transfers develop subsidiaries back to developing parents.

Whilst the theoretical dimensions have been discussed in isolation, it is more accurate to suggest that it is their synthesis or interrelationship in terms of trust, willingness and context of knowledge which creates the unique situation whereby RKT is argued as being more effective between the developed subsidiary and the developing parent, when the parent is in the GCC. The tripartite nature of this relationship centres on the unique culture of the GCC in terms of strong familial and social bonds which engender trust, and also enable a deeper contextual understanding as well as a willingness to value the knowledge more carefully, and utilise the knowledge more quickly and more effectively to secure a greater competitive benefit. Ultimately it is contended in this thesis that culture plays a central role in the efficacy of RKT, and the role of culture operates at multiple levels. Culture in turn engenders a symbiotic relationship between willingness to share knowledge, trust in the knowledge transfer process, and the context of knowledge such that it can be subsequently effectively utilised in order to secure competitive advantage in the short term and potentially sustainable competitive advantage in the long-term. What follows is an explanation of the empirical contribution of this research on the basis of testing these theoretical aspects.

8.1.2 Methodological and Empirical Contribution

The output of the data collection and analysis in this thesis offered three methodological and empirical contributions to the existing body of knowledge regarding RKT. These contributions are mapped to an extended from the theoretical contributions of (1) the role of culture in knowledge transfer; (2) the role of trust in knowledge transfer; and (3) the role of context in interpreting knowledge, and thus generating subsequent organisational benefit. Each of these contributions as discussed in turn.

It has been the position of this research throughout, that there is a unique dimension to the culture of the organisational relationship between a parent and subsidiary, when the parent is in the GCC, and the subsidiary is in a developed economy. It is only been relatively recently thanks to economic and technological developments, but there have been rapid acceleration in economic growth in developing and emerging economies, and this has, it is argued and evidenced in this research, shifted the balance of power between parents and subsidiaries in internationalised business, and also impacted upon the state of knowledge with regards to RKT. As empirical studies preceding this one have revealed, there are factors specific to the parent subsidiary relationship which directly impact the nature of knowledge transfer, and the situation is made more complex by the fact that there are attitudinal differences shown by parents from emerging and developing economies in regards to the internationalisation strategy. In short, these parent firms are more aggressive in their internationalisation, and they are proactively seeking knowledge because they perceive that this knowledge has value which can be exploited.

As this empirical study has revealed, this cultural foundation of perceiving that there is value in the knowledge from the outset, shifts the way in which parent firms set about harnessing knowledge from their subsidiaries, and also how they use the knowledge from their subsidiaries. Parent firms are proactively interested in capturing knowledge, and thus willingly support knowledge transfer, treating the knowledge as being valuable and important, and thus making subsidiaries feel as if knowledge transfer is a worthwhile use of time, effort and resources. Moreover, the parent is then shown to actively use the knowledge to secure some form of competitive advantage. There are differing aspects of knowledge utilisation recent practitioner studies, highlighting that there may be situations where the parent acquires knowledge which it cannot necessarily put into use just yet, perhaps because there is a lack of infrastructure or a lack of demand. However, this does not mean that the knowledge is dismissed as being unworkable, and it is that often applied laterally. It is argued and evidenced

in the study that because the knowledge is treated as valuable on the basis that the parent firm has a different cultural attitude to knowledge, this create a source of unique differential advantage potentially on a sustainable basis.

The second key empirical contribution to research, is the extent to which trust is intertwined with organisational culture and has a significant mediating impact in the situation of RKT from a developed subsidiary to the GCC parent. It is argued and evidenced extensively in existing theoretical and empirical research that trust is a significant mediating variable influencing the willingness of subsidiaries to transfer knowledge, in full, accurate and timely manner. As discussed extensively in the literature review and previous sections of this research, there are myriad potential barriers to the willingness of knowledge transfer which can adversely impact the speed efficacy of knowledge transfer. Examples include a selective and partial interpretation of knowledge which has been transferred, leading to either a misunderstanding, or limited appreciation of the value of knowledge. Subsidiary firms perceiving that their knowledge is not valued, or that their contributions are in some way lesser, have been repeatedly shown to resist knowledge transfer in various different ways.

What this study has revealed is that when there are free and open channels of knowledge transfer, directly facilitated by the existence of organisational culture and trust, then not only is knowledge transferred promptly, it is also transferred in full and with the supporting contextual understanding. In addition, the prompt transfer of knowledge, facilitates a potential source of competitive advantage ahead of potential competitors ultimately leading to a situation where the parent firm placed themselves at a competitive advantage, because they have encouraged full and prompt transfer of knowledge, and in turn the knowledge has been used properly. What this study has confirmed, thus supporting an existing body of research, is that none of this is possible without strong bond of trust between the parent and subsidiary. What is unique in terms of the contribution of this research, is that because of the cultural and social bonds engendered by the GCC parent, higher levels of trust are already present, and this in turn directly informs the extent to which the subsidiary shares knowledge, in full, and confident that the knowledge contribution is valued.

An additional level of empirical contribution directly associated with the existence of trust in the relationship, is that because of the strong likelihood of a sociocultural conduit there is trust in the contextual explanation of the knowledge when it is shared. Trust is repeatedly shown in existing theoretical and empirical studies to be a critically important mediating variable, and

the contribution of this study is that trust is shown to be statistically more significant in relation to GCC parent, develop subsidiaries in terms of the speed and willingness to engage in knowledge transfer, it is also argued that trust is intertwined with culture specifically organisational sociocultural norms, which, if these are not present, either limits or even directly inhibits knowledge transfer, and trust in the knowledge which has been transferred. In this study it is shown that the parent can have confidence in the value of knowledge provided by the subsidiary, because of the existence of a relationship of trust which is a significant mediating variable.

The third empirical contribution is the critical importance of context in interpreting the knowledge, and this is argued as a particularly significant finding in relation to this thesis. Within the remit of this thesis, context is contended as being the importance of cultural similarity between parent and the subsidiary, directly engendered as a result of the parent using close cultural ties to ensure that the conduit between the parent and subsidiary facilitates a clear articulation of the knowledge which is being transferred. As a direct consequence of the close cultural ties and similarity between the parent and the subsidiary, means that the knowledge, is transferred quickly, and in full, and is contextually explained. It is argued that as an empirical output of this thesis this contextual explanation facilitated by the culture similarity between the parent and subsidiary is crucial to the efficacy of not only the nature of knowledge transfer, but also the way in which the parent which the knowledge to use. In other words, there is greatly reduced scope for cross-cultural misunderstanding, because of the cultural similarity between the parent and subsidiary, and in turn this ensures that the parent can benefit from the knowledge which has been transferred.

In addition, it is further suggested that as a direct consequence of this relationship between the parent and subsidiary in terms of cross-cultural contextual understanding, the subsidiary also benefits. By demonstrating to the parent subsidiary provides full find accurate knowledge in a timely manner, it enhances the level of trust and strengthens the relationship between the parent and subsidiary, meaning that the parent becomes more reliable subsidiary rather than treating the subsidiary as in some ways lesser or inadequate. It is argued on the basis of the evidence and analysis in this thesis, that because of the cultural similarity between parent and the subsidiary due to the nature of the way in which the relationship is managed, through power cultural ties and social equity, ultimately, the parent firm benefits considerably.

Although in these discussions, these three elements of culture, trust and context have been treated independently, it is also argued that consistent with the theoretical explanations, it is more accurate to interpret these three factors in combination with one another, because it is the existence of a combination which needs to improved outcomes in terms of knowledge transfer. Taking all of these factors into consideration, it is contended that these variables have significant practical impact on the efficacy of knowledge transfer from the subsidiary to the parent, with mutual reciprocal benefit. In turn, these practical empirical findings inform the managerial recommendations and policy recommendations which follow whereby suggestions are made for organisations seeking to engage in international RKT, and also where national or international regulatory or industry bodies might benefit from the insights into the specifics of knowledge transfer in the context of transferring knowledge from developed economy to an emerging or developing economy where it is the subsidiary transferring knowledge to the parent.

8.1.3 Managerial Recommendations and Policy Recommendations

Turning to the practical and policy recommendations emerging from this research, these can be categorised under (1) managerial recommendations, and (2) policy recommendations to function at either industry level through professional bodies, or potentially national level through government intervention and support.

The empirical findings of this study confirmed a relationship between organisational power, and action on the basis of knowledge transferred from subsidiary, mediated through cultural similarities between the parent and the subsidiary, willingness or motivation to transfer, and evidence of knowledge being utilised by the parent to secure some form of competitive advantage. Further, the empirical evidence showed that trust is an important influencing variable, as is the willingness to share knowledge and the speed at which knowledge is shared, all of which are consistent with theory. Further, consistent with existing empirical studies, formal mechanisms of knowledge transfer supported by the tacit mechanisms of willingness trust and culture significantly mediate the speed of reverse knowledge transfer, and thus its subsequent use. Taking all of these factors into consideration, the following three managerial recommendations are therefore offered.

First, that organisations wishing to benefit from RKT ensure that there is a clear and formalised mechanism of knowledge transfer, which is thoroughly embedded and actually used. Existing empirical studies confirm that there is a distinction between paying lip service to the notion of

having mechanisms of knowledge transfer, and actually using the mechanisms of knowledge transfer. Mediating variables which adversely impact this relationship include, but are not limited to, a willingness to share knowledge, or practical barriers which inhibit the efficacy of knowledge transfer, and subsequent utilisation. Fundamentally, without an established means of transferring knowledge, which incorporates the entirety of identifying the existence of knowledge, capturing and codify the knowledge and then subsequently disseminating knowledge, then any efforts knowledge transfer will be undermined. First practical recommendation, formal mechanisms of knowledge transfer, ideally supported by informal mechanisms as will be discussed, are imperative.

Second, in order to fully realise the value of RKT, organisations must ensure that there is a culture of trust between the parent and the subsidiary, which encourages full and frank and also timely knowledge transfer from the subsidiary back to the parent. These tacit elements also proven in this study, and indeed in other existing theoretical and empirical research, to be critical components of effective RKT. Moreover, whilst they are treated as independent variables for the purposes of distinct analysis, it is more realistic to acknowledge the symbiotic nature of trust and culture, as trust between a parent and subsidiary is engendered through organisational culture, and is not exist independently of it, unless it is individualised level between specific employees in different parts of the organisation. As this study examined RKT activities at the general level, it is more useful to acknowledge the interlaced role of culture and trust, which are imperative to ensure a willingness to transfer. These tacit factors also feed into the formalised and also in formalised mechanisms of knowledge transfer, as without a willingness to transfer knowledge engendered by trust and culture, they will either be no knowledge transfer, or partial, incomplete or even possibly in extreme circumstances, false knowledge transfer. The latter will be difficult to ascertain but would be a reasonable practical interpretation.

The third practical recommendation for managers arising from this study, is understanding the role of context when interpreting the knowledge in order to make full use of the knowledge and benefit accordingly. The unique position of this research throughout has been that cultural context is a significant differential specific to GCC headquartered firms in terms of the way in which cultural organisational norms function. It is not been the intent to argue that this does not or cannot occur anywhere else in the world, as this is not yet been fully researched, but it is suggested that there are aspects of the relationship between the GCC parent and the developed subsidiary that inform the contextual interpretation knowledge, and which the GCC

parent is better positioned to exploit. There are mixed opinions in the existing literature as to the importance of context in interpreting knowledge which has been transferred in this manner. Whilst there is little disagreement that knowledge is contextually informed, because this is how knowledge is made, there are competing views on the extent to which organisations accurately recognise the context of information and implements of context and subsequent interpretation and ensuing organisational value. It is argued in this study, that as a third recommendation in order to fully realise the benefits of knowledge transferred from a subsidiary, the parent must fully understand the context in which knowledge has been gathered and transferred.

Turning to policy recommendations, these are developed in conjunction with practical recommendations to operate organisational level, and, one suggestion is presented to function at industry level, for example to be adopted by regulated industry bodies. Two further suggestions are offered at potentially national level, perhaps through government intervention or through policy think tanks. These recommendations are follows:

at industry level, it is recognised that there are certain international global bodies which exist specific to industry sectors, for the express purpose of sharing best practice and knowledge on an international basis. Typically, much like the vast proportion of existing research on knowledge transfer and RKT, these industry bodies have been established in developed economies, and are used as a repository of knowledge which is then shared with developing and emerging economies. It is also not unusual for extremely large multinational organisations to operate their own similar knowledge repositories of best practice and so there are examples of how knowledge transfer can operate internationally in this manner. At industry level, it is suggested that there is the potential to apply the findings of this thesis with specific regard to the recognition of the way in which culture can inform RKT. It would be anticipated that in different industry sectors there are likely to be differing mediating variables, contingent upon the extent to which knowledge is already transferred. For example, specific knowledge around construction, is on the one hand widely transferable, but on the other highly specialised contingent upon specific conditions of construction such as availability of materials, geography, and topography. Effective contextualise communication of this knowledge is likely to be critically important in order to realise nuance and value, which is why and industry level understanding could well accelerate the efficacy of knowledge transfer moving forward.

In respect of national level implications, two further suggestions are offered. These are, first, establishing a national level repository of knowledge transfer within the GCC, in order that as

an economic trading bloc knowledge can be transferred quickly and effectively, and disseminated widely. This particular recommendation built on the finding of this study that contextual interpretation of the knowledge is of critical importance, and if it can be held centrally, it is easier to explain the knowledge which has been transferred relative to cultural context in order that a greater number of organisations can benefit. Furthermore, for example if nascent organisations were considering international expansion, they could approach the nationalised repository for insights into some of the issues that they should be considering when they are seeking to engage in knowledge transfer, and thus accelerate or leapfrog the knowledge transfer process to maximum effect. At present existing literature and studies reveal that a failure to appreciate the questions to ask as part of knowledge transfer can also hinder the efficacy of knowledge transfer. By holding a central knowledge repository and actively understanding the nature of knowledge transfer this could produce significant accelerated economic gains and support a wide range of businesses.

Second, it would be recommended that a working group is established to try and determine whether there are specific practical actions or activities which enhance or accelerate RKT from develop subsidiaries back to GCC parents. Whilst it has been established in this study that there are specific cultural factors which are of critical importance in accelerating the trend of knowledge transfer, it is articulated in suggestions for further research below, that there are probably specific activities which individual organisations undertake, where this advice can be readily transferred as to the mechanisms of knowledge transfer. Linking back to the suggestions for managers as regards the functionality of robust formal transfer mechanisms, there are a variety of ways in which these can be conducted. Obvious examples include formalised training programs, but potentially establishing working groups within organisations, communities of practice, employee exchange, and active projects could all be examples of where best practice in terms of what works and what is less effective in knowledge transfer could be of use to other organisations. A practical working party comparing and contrasting different techniques of knowledge transfer, would be a useful contribution to policy understanding for countries in the GCC seeking to accelerate their internationalisation strategies.

8.2 Research Limitations and Future Research

Despite careful planning and preparation diligent work, it is inevitably the case that any research study has limitations, and this research thesis is no exception. Reflecting on the thesis, it is fair to suggest that the limitations predominantly relate to the framing of the dataset, and the fact that the panel data was collected from an aggregate centralised source the general

authority for statistics, meaning that whilst it is possible to demonstrate theoretical and empirical contribution to generalised level, it is quite possible they will be unique or individualised variations which are in plain terms, an exception to the rule. In other words, there could be some consideration of lack of wider generalisability.

Furthermore, the data was predominantly collected on a historical basis, during a period of significant economic growth and development which is been witness to significant technological changes that have greatly impacted the way in which knowledge is transferred through informal channels as well as formal channels. Informal knowledge transfer was not explicitly evaluated in this research as independent variable, but on reflection it might be regarded that informal knowledge transfer has become more important component of global knowledge transfer in the present day because of the ready access to information through the Internet and informal communities of practice.

On this basis it is suggested that there are two core areas for future research which would be particularly relevant in order to extend the findings of this study. The first of these is a focus on the role of communities of practice as part of the RKT process within the context of developed subsidiary-developing parent. Contemporaneous evidence suggests that in formalised communities of practice have become a central component of effective knowledge transfer, knowledge sharing and learning amongst many globalised organisations. With globalisation becoming increasingly prevalent, these informal modes of knowledge transfer have the potential to accelerate the knowledge transfer process. Evidence for this suggestion is based on highly contemporaneous events and the Covid-19 pandemic which is forced many organisations to facilitate working. This in turn has impacted the way in which organisations are framing knowledge transfer opportunities, because the Covid-19 pandemic has changed the way in which business is done. Informal knowledge transfer has become more important than ever before, and it would be recommended that this is explored as part of future research.

Secondly, it is argued that there would be benefit from conducting action research into the functionality efficacy of RKT as part of a planned study to determine the mediating impact of variables shown to influence RKT. By conducting a planned social experiment into RKT within the context of developing parent-developed subsidiary and the conduit of knowledge transfer focused around trust, willingness and context, it is likely that greater understanding will be obtained as to the tacit aspects of knowledge transfer which are considered to be so crucial to the success of knowledge transfer in the longer term. A better understanding of a symbiotic

nature of variables which inform RKT in this context can illuminate how the process can be reliably replicated this enhancing the value which can be obtained from knowledge transfer in an increasingly globalised yet increasingly remote world.

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APPENDICES

APPENDIX 1: Questionnaire Survey

Reverse Knowledge Transfer from Multinational Subsidiaries to their Headquarters in the GCC – the mediating effects of social equity, transfer mechanisms, trust and willingness

Background of the study:

This research is being undertaken by a PhD student as part of his doctorate degree at University of Sheffield. The purpose of this research is to examine the way knowledge is transferred between subsidiaries to their parent companies on an international basis. Thus, this mean to understand how firms in the GCC with subsidiaries in developed economies benefit from knowledge transfer between subsidiary and their parent. Organizations collectively benefit when they are able to utilize unique local knowledge. However, there are differing perspectives of the value of knowledge, and employees can be reluctant to share knowledge for a variety of reasons. And how the parent company learns from its subsidiaries, for example whether there are differences in customer preferences in local markets which can be exploited.

Another important factor which this research is seeking to better understand is the role of context. Knowledge in organizations is contextual, shaped by shared experiences. The implications of this are that without an understanding of the context, the knowledge is potentially less valuable. This research is particularly interested to understand how context affects willingness to engage in knowledge transfer, and also the efficacy of knowledge transfer.

The following questionnaire contains a number of demographic questions for the purposes of classification to ensure broad population distribution. Following this, there are a number of statements developed from existing research in the field of knowledge transfer. These statements are designed to understand how employees and managers feel about sharing knowledge. This questionnaire survey was partly adapted and informed by the literature review

The statements are ranked on a scale of 1 to 7 with one being equivalent to strongly disagreeing with the statement, and being equivalent to strongly agreeing with the statement. There are no right or wrong answers, but please be sure to answer every statement.

Confidentiality

The data of this study will be kept private and confidential in any sort of report I publish, I will not include any information that will make it possible to identify a subject. Research data will be sorted securely and only researcher will have access to the data. The notes and data from the questionnaire survey will be kept locked on the researcher's flash drive or computer under password protection.

Procedure

If you agree to be in this study, I would ask you to do the following things;

Sign a consent form

Respond to this questionnaire.

Contacts and questions

Your contribution to this research is greatly valued and if you have any further questions please contact me at: Aalajmi4@sheffield.ac.uk . You may also contact my lead supervisor; Prof. Andrew Simpson (andrew.simpson@sheffield.ac.uk)

Q.1 State your gender

- Male
- Female
- Prefer not to answer

Q.2 State your age

- 20 – 29 years
- 30 – 39 years
- 40 – 49 years
- 50 - 59 years
- 60+ years

Q.3 State your nationality:

- Bahrain
- Kuwait
- Oman
- Qatar
- Saudi Arabia
- UAE
- Other

Q.4 State your highest level of formal academic education:

- High school
- A-levels/Baccalaureate or equivalent
- Undergraduate degree or equivalent
- Masters or equivalent
- PhD or equivalent
- Other

Q.5 State your occupation:

- CEO
- Executive manager
- Analyst
- Data Engineer
- Finance
- HR Manger
- Operations
- Other

Q.6 State the type of core organization activity you work for:

- Financial services
- Petrochemical
- Technology

Export/Import
Retail
Agriculture
Other

Q.7 when was your organization established? _____

Q.8 when was you subsidiaries established? _____

Q.9 Where is your subsidiaries located? _____

Q.10 State your length of employment for your current employer:

0 – 2 years
3 – 5 years
6 – 10 years
11 – 15 years
16+ years

Q.11 State your years of professional working life:

0 – 10 years
11 – 20 years
21 – 30 years
31 - 40 years
41+ years

Q.12 State the size of the subsidiary organisation you work for:

0 – 100 employees
101 – 250 employees
251 – 500 employees
501 – 1000 employees
1001+ employees

Q.13 State the age of the subsidiary organisation you work for:

0 – 5 years
6 – 10 years
11 – 20 years
21 – 30 years
31+ years

Q.14 Is the subsidiary you work for:

Acquired as a takeover
Part of a merger
Established as a form of Foreign Direct Investment (FDI)
Other

Q.15 Describe the culture of the subsidiary:

Clan – family orientated
Adhocracy – dynamic and entrepreneurial
Market Orientated
Hierarchical

Q.16 on a scale of 1 (strongly disagree) to 7 (strongly agree), please evaluate (grade) each factor to the extent that it influenced the reverse knowledge transfer from the subsidiaries to the headquarter

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree or disagree (4)	Somewhat agree (5)	Agree (6)	Strongly Agree (7)
WILLINGNESS TO SHARE KNOWLEDGE – subsidiary to parent firm							
Subsidiaries enjoy sharing their knowledge with their headquarter Mudambi and Navarra (2004)							
subsidiaries seek out opportunities to share knowledge with their headquarters Mudambi and Navarra (2004)							
Subsidiaries feel happy sharing their specialist knowledge with their headquarters Mudambi and Navarra (2004)							
Subsidiaries have unique knowledge or expertise to share Mudambi and Navarra (2004)							
Subsidiaries willingly share knowledge with others without being asked McDermott and O’Dell (2001)							
Subsidiaries do not share knowledge							

because they fear it would erode their strategic independence Mudambi and Navarra (2004)							
SOCIAL EQUITY							
Employee are rewarded for sharing knowledge Muthusamy and White (2005)							
Our organisation benefits from knowledge sharing Muthusamy and White (2005)							
Employees feel closer to our organisation when we share our expertise Muthusamy and White (2005)							
Employees build social equity with their international colleagues by sharing knowledge Muthusamy and White (2005)							
Employees build reciprocal commitment with their international colleagues by sharing knowledge Muthusamy and White (2005)							
TRUST							
Employees feel safe sharing knowledge with colleagues Levin et al., (2002)							

Sharing knowledge make Employees feel included Levin et al., (2002)							
Sharing knowledge make Employees feel they are part of the organisation's community Levin et al., (2002)							
Employees are recognised for sharing their knowledge Levin et al., (2002)							
Employees knows that they will receive credit / recognition from their line manager for sharing ideas Levin et al., (2002)							
Sharing knowledge builds benevolent trust between the subsidiary and the parent Levin et al., (2002)							
VALUE							
Employees know that their knowledge has value Phene and Almeida (2008)							
Employees knowledge is treated as valuable by the organisation Phene and Almeida (2008)							
Employees have knowledge unique to our organisation which is important to our success Phene and Almeida (2008)							

It is important to collect / codify knowledge in our organisation Phene and Almeida (2008)							
As an organisation we know the value of our local knowledge Phene and Almeida (2008)							
As an organisation we actively share knowledge/innovations from subsidiaries Phene and Almeida (2008)							

Q.17 Tick from (1) strongly Disagree (7) strongly Agree the most appropriate statement

MECHANISMS OF KNOWLEDGE TRANSFER, Our organisation supports knowledge transfer by:							
	Strongly Disagree	Disagree	Somewhat disagree	Neither agree or disagree	Some what agree	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Actively encouraging staff to share knowledge Hansen (2002)							
Documenting or capturing knowledge Hansen (2002)							
Codifying and sharing knowledge Gupta and Govindarajan (1991)							
Updating practices and policies with new knowledge Gupta and Govindarajan (1994)							
Sharing the benefits of knowledge with examples Gupta and Govindarajan (1991)							
Rewarding staff who share knowledge							

Hansen (2002)							
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Q.18 Tick from (1) strongly Disagree (7) strongly Agree the most appropriate statement

SENIOR EMPLOYEES SHARING KNOWLEDGE – through face to face interaction and technology communication							
	Strongly Disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Company visits from the parent to the subsidiary Yang et al., (2008)							
Creating international / cross-cultural project teams Andersson et al., (2016)							
Encouraging and supporting international assignments Yang et al., (2008)							
Facilitating visits by subsidiaries to the parent Yang et al., (2008)							
Facilitating visits between subsidiaries Yang et al., (2008)							
Creating international training opportunities Andersson et al., (2016)							
Through Information Communication technologies Edenius et al., (2003)							

Q.19 Tick from (1) strongly Disagree (7) strongly Agree the most appropriate statement

CHARACTERISTIC OF KNOWLEDGE TRANSFERRED – our subsidiaries have knowledge which is:							
	Strongly Disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Easily captured and documented in a consistent format (explicit) Ambos et al., (2005)							
Easily communicated and shared (explicit) Ambos et al., (2005)							
Novel or innovative and distinguishes us from our direct competitors (tacit) Miesing et al., (2007)							
A source of value to our customers (explicit) Miesing et al., (2007)							
Built upon unique employee knowledge or experience (tacit) Miesing et al., (2007)							
Non-replicable as it is the outcome of interlaced processes and procedures (tacit) Miesing et al., (2007)							

Q.20 Tick from (1) strongly Disagree (7) strongly Agree the most appropriate statement

SPEED OF KNOWLEDGE TRANSFER – between the subsidiary and parent:							
	Strongly Disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
The new technology in which was transferred from your subsidiary was very fast Khan et al., (2015)							

The new technology was transferred from your subsidiary in a timely fashion Khan et al., (2015)							
It took our company a short time to acquire and implement the technology provided by our subsidiary Khan et al., (2015)							
The subsidiary is highly motivated to share new knowledge promptly Chen and Lovvorn (2011)							
Organisational processes make it easy to share knowledge quickly Chen and Lovvorn (2011)							
The subsidiary knows why it is important to share knowledge quickly Chen and Lovvorn (2011)							

Q.21 Tick from (1) strongly Disagree (7) strongly Agree the most appropriate statement

Within your organisation, what role does POWER play in knowledge sharing?							
	Strongly Disagree	Disagree	Somewhat disagree	Neither agree or disagree (4)	Somewh at agree	Agree	Strongly Agree
	(1)	(2)	(3)		(5)	(6)	(7)
Subsidiaries share knowledge freely and are not compelled to do so Ipe (2003) Wong and Lee (2008)							
Knowledge is used as a moderate source of power by							

some in the organisation Ipe (2003)							
Knowledge is used as a source of power in exchange for resources in negotiations Ipe (2003)							
Some employees withhold their tacit knowledge to protect their position Ipe (2003)							
Some employees partially withhold knowledge by omission to protect their position Ipe (2003)							
Subsidiaries are compelled to share knowledge by the parent organisation which holds power in some form Ipe (2003)							

Q.22 On a scale of 1 (strongly disagree) to 7(strongly agree), please specify the types of knowledge shared between your multinational subsidiaries to your Headquarter in the GCC

TYPES OF KNOWLEDGE SHARED – our organisation has specialist knowledge in:							
	Strongly Disagree	Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree	Strongly Agree
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Technological expertise Birkinshaw et al., (2002)							
Manufacturing processes Birkinshaw et al., (2002)							
Design and development (software)							

Birkinshaw et al., (2002)							
Product development Birkinshaw et al., (2002)							
Marketing and branding Birkinshaw et al., (2002)							
Cultural norms and practices Birkinshaw et al., (2002)							

Q.23 What were the main motivation which influenced your decision to receive reverse knowledge from your subsidiaries? Please tick the most appropriate motivation across the range 1 (strongly disagree) to 7 (strongly agree)

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree or disagree (4)	Somewhat agree (5)	Agree (6)	Strongly Agree (7)
Motivation							
To adapt the existing subsidiaries knowledge to suit the GCC Market Phene and Almeida (2008)							
To develop new knowledge with your subsidiaries as part of global innovation program Phene and Almeida (2008)							
To exchange complementary technology with your subsidiaries Phene and Almeida (2008)							
To produce your company's established product range for the GCC market							

Phene and Almeida (2008)							
To develop and produce products that are new to the GCC market Phene and Almeida (2008)							
to help the parent company communicate more effectively Phene and Almeida (2008)							
To help the parent form a community of practice Phene and Almeida (2008)							

Q.24 Tick from (1) strongly Disagree (7) strongly Agree the most appropriate statements

	Strongly Disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree or disagree (4)	Somewhat agree (5)	Agree (6)	Strongly Agree (7)
EVIDENCE OF KNOWLEDGE UTILISATION – on the basis of knowledge transferred from a subsidiary, the parent company has:							
Changed standard processes Adenfelt and Lagerström (2008)							
Instigated market research Adenfelt and Lagerström (2008)							
Retrained employees Adenfelt and Lagerström (2008)							
Updated company procedures							

Adenfelt and Lagerström (2008)							
Switched to a new supplier Adenfelt and Lagerström (2008)							
Won more business from a customer Adenfelt and Lagerström (2008)							

ACTION OF THE BASIS OF KNOWLEDGE – on the basis of knowledge transferred from a subsidiary, the parent company has:							
Discussed how knowledge could be used and applied Lagerström and Andersson (2003)							
Recognised that knowledge may need to be adapted for a local market Lagerström and Andersson (2003)							
Invested in new equipment or staff to disseminate knowledge Lagerström and Andersson (2003)							
Invested in further R&D to explore new opportunities Lagerström and Andersson (2003) / Andersson et al., (2016)							

Restructured parts of the organisation to exploit new knowledge Lagerström and Andersson (2003)							
Introduced new products and services which are unique to the parent company's market Lagerström and Andersson (2003)							

SIMILARITIES BETWEEN PARENT AND SUBSIDIARY – The parent and subsidiaries have:							
Genuinely shared values McDermott and O'Dell (2001)							
Similar or comparable business practices Hansen (2002)							
A sense of shared history and culture Hansen (2002)							
A shared or similar view of "how business is done" McDermott and O'Dell (2001)							
A similar positioning in their respective markets (e.g. premium, mid-range)							

Frost and Zhou (2005)							
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THIS IS THE END OF THE QUESTIONNAIRE. THANK YOU FOR YOUR VALUABLE TIME AND CONTRIBUTION!

If you would like to receive a summary of the research and key recommendations, please leave your details here:

NAME:

EMAIL:

Clear link of each item to source. Table below summarizes main contribution of each of the papers used in the development of the instrument.

Adenfelt, M. and Lagerström, K., 2008. The development and sharing of knowledge by centres of excellence and transnational teams: A conceptual framework. <i>Management International Review</i> , 48(3), p.319.	Mechanisms of forward and reverse knowledge transfer heavily influence by pre-existing social relationships and trust
Ambos, T.C., Ambos, B. and Schlegelmilch, B.B., 2006. Learning from foreign subsidiaries: An empirical investigation of headquarters' benefits from reverse knowledge transfers. <i>International Business Review</i> , 15(3), pp.294-312.	Benefits from subsidiary knowledge
Andersson, U., Dasí, Á., Mudambi, R. and Pedersen, T., 2016. Technology, innovation and knowledge: The importance of ideas and international connectivity. <i>Journal of World Business</i> , 51(1), pp.153-162.	Importance of creating micro-level knowledge transfer mechanisms
Birkinshaw, J., Nobel, R. and Ridderstråle, J., 2002. Knowledge as a contingency variable: do the characteristics of knowledge predict organization structure?. <i>Organization science</i> , 13(3), pp.274-289.	Organisational structure a strong predictor of willingness and capacity of knowledge sharing (forward and reverse)
Cameron, K.S. and Quinn, R.E., 2011. <i>Diagnosing and changing organizational culture: Based on the competing values framework</i> . London: John Wiley & Sons.	A means of capturing and defining culture and values in organisations

Chen, J.S. and Lovvorn, A.S., 2011. The speed of knowledge transfer within multinational enterprises: the role of social capital. <i>International Journal of Commerce and Management</i> , 21(1), pp.46-62.	Social capital is critical in influencing the pace and flow of knowledge transfer
Edenius, M., Borgerson, J. (2003) 'To Manage Knowledge by Intranet.' <i>Journal of Knowledge Management</i> , 7(5), pp. 124-136.	Many strategies correspond to different kinds of information technology in the context of knowledge management
Frost, T.S. and Zhou, C., 2005. R&D co-practice and 'reverse' knowledge integration in multinational firms. <i>Journal of International Business Studies</i> , 36(6), pp.676-687.	Co-operation and mutual trust a strong indicator of future willingness to share knowledge
Gupta, A.K. and Govindarajan, V., 1991. Knowledge flows and the structure of control within multinational corporations. <i>Academy of management review</i> , 16(4), pp.768-792.	Corporate control of knowledge flows (forward and reverse) is lateral and culture-context specific
Gupta, A.K. and Govindarajan, V., 1994. Organizing for knowledge flows within MNCs. <i>International Business Review</i> , 3(4), pp.443-457.	Subsidiaries more likely to develop their own knowledge than absorb head office directives.
Hansen, M.T., 2002. Knowledge networks: Explaining effective knowledge sharing in multiunit companies. <i>Organization science</i> , 13(3), pp.232-248.	Existing inter-organisational knowledge transfer mechanisms can have conflicting impacts depending on *type* of knowledge
Harzing, A.W. and Noorderhaven, N., 2006. Knowledge flows in MNCs: An empirical test and extension of Gupta and Govindarajan's typology of subsidiary roles. <i>International Business Review</i> , 15(3), pp.195-214.	Individual subsidiaries develop at different rates – more likely to share with parent than other subsidiaries
Ipe, M., 2003. Knowledge sharing in organizations: A conceptual framework. <i>Human Resource Development Review</i> , 2(4), pp.337-359.	Individuals at different levels within organisations use their knowledge (positively and by omission) as a source of power in negotiations and information transfer.
Khan, Z., Shenkar, O., & Lew, Y. K. (2015). Knowledge transfer from international joint ventures to local suppliers in a developing economy. <i>Journal of International Business Studies</i> , 46(6), 656-675	the role of socialization in knowledge transfer from international joint venture assemblers and how to enhance the comprehension and speed of knowledge transfer to local suppliers socialization mechanisms enhance comprehension but not speed

Lagerström, K. and Andersson, M., 2003. Creating and sharing knowledge within a transnational team—the development of a global business system. <i>Journal of World Business</i> , 38(2), pp.84-95.	Social value and equity critical for knowledge generation and knowledge sharing (inter and intra)
Levin, D.Z., Cross, R., Abrams, L.C. and Lesser, E.L., 2002. Trust and knowledge sharing: A critical combination. <i>IBM Institute for Knowledge-Based Organizations</i> , 19, pp.1-9.	Role of relational and social capital (trust) in knowledge sharing
McDermott, R. and O'Dell, C., 2001. Overcoming cultural barriers to sharing knowledge. <i>Journal of knowledge management</i> , 5(1), pp.76-85.	Employees adapt their approach to KM and RKT to fit their culture. They do not change their culture to fit new knowledge.
Miesing, P., Kriger, M.P. and Slough, N., 2007. Towards a model of effective knowledge transfer within transnationals: The case of Chinese foreign invested enterprises. <i>The Journal of Technology Transfer</i> , 32(1-2), pp.109-122.	Types of knowledge – tacit and explicit – subsidiaries to Chinese parent
Mudambi, R. and Navarra, P., 2004. Is knowledge power? Knowledge flows, subsidiary power and rent-seeking within MNCs. <i>Journal of International Business Studies</i> , 35(5), pp.385-406.	Knowledge flows
Mudambi, R. and Navarra, P., 2015. Is knowledge power? Knowledge flows, subsidiary power and rent-seeking within MNCs. In <i>The Eclectic Paradigm</i> (pp. 157-191). Palgrave Macmillan, London.	Subsidiaries able to exploit their knowledge in negotiations with parent
Muthusamy, S.K. and White, M.A., 2005. Learning and knowledge transfer in strategic alliances: A social exchange view. <i>Organization Studies</i> , 26(3), pp.415-441.	Role of social exchange in knowledge transfer
Noorderhaven, N. and Harzing, A.W., 2009. Knowledge-sharing and social interaction within MNEs. <i>Journal of International Business Studies</i> , 40(5), pp.719-741.	Good social interaction critical for the speed and quality of knowledge flows (multi-directional).
Phene, A. and Almeida, P., 2008. Innovation in multinational subsidiaries: The role of knowledge assimilation and subsidiary	Subsidiary knowledge critical mediating factor in scale and quality of innovation and organisational development

<p>capabilities. <i>Journal of international business studies</i>, 39(5), pp.901-919.</p>	
<p>Yang, Q., Mudambi, R. and Meyer, K.E., 2008. Conventional and reverse knowledge flows in multinational corporations. <i>Journal of Management</i>, 34(5), pp.882-902.</p>	<p>Knowledge characteristics and host country characteristics significant mediating effects on reverse knowledge transfer</p>
<p>Wong, S.S., Ho, V.T. and Lee, C.H., 2008. A power perspective to interunit knowledge transfer: Linking knowledge attributes to unit power and the transfer of knowledge. <i>Journal of Management</i>, 34(1), pp.127-150.</p>	<p>Units of power in transferring knowledge</p>

APPENDIX 2: Participant Information Sheet

1. Research Project Title:

Reverse Knowledge Transfer from Multinational Subsidiaries to their Headquarters in the GCC – the mediating effects of social equity, transfer mechanisms, trust and willingness

2. Invitation paragraph

You are being invited to take part in a research project. Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

3. What is the project's purpose?

The purpose of this research is to fully understand how RKT functions from multinational subsidiary to their parent company when the subsidiary is in a developed economy, and the parent company is in a developing economy. At present this remains an under investigated area, as until very recently the economic and technological conditions did not exist for this situation. This means that it is necessary to identify and measure knowledge and its mechanism for reverse transfer.

4. Why have I been chosen?

As a headquarter manager in the GCC, I believe your expertise and insights would be very valuable for this research. I would be very grateful if you would agree to participate to this research and share your views on reverse knowledge transfer, the motivation and best practices as well as strategies for facilitating resource exchanges, and determining their applicability and advantages in improving the speed of capability development within the context of a GCC

5. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time without any consequences. You do not have to give a reason. If you wish to withdraw from the research, please contact the researcher

Abdullah Alajmi Email: AAalajmi4@sheffield.ac.uk or the director of studies Prof. Andrew Simpson andrew.simpson@sheffield.ac.uk

6. What will happen to me if I take part? What do I have to do?

You will be taking part in responding to the questionnaire survey. The questionnaire survey will be conducted in (English). The duration of the questionnaire survey is approximately 15-20 minutes. The data you provide is strictly confidential. The questionnaire survey questions remain at a generic level and you are not required to reveal sensitive information. The questionnaire survey themes include: Demographic questions, background of the company, willingness, social equity, trust and value to share knowledge. Mechanisms of knowledge transfer, characteristic of knowledge transfer, speed of the knowledge transfer, knowledge power, type of the knowledge transfer, motivation on reverse knowledge transfer, evidence of knowledge utilisation and similarities between parents and subsidiaries.

The data of this research will be used only for analysis. No other use will be made of them without your written permission, and no one outside the project will be allowed access to it.

7. What are the possible disadvantages and risks of taking part?

This research does not pose any risk or disadvantage, the information provided is strictly confidential and there are no consequences to you for any views or insights you may present during your participation. All personal data is anonymised and where needed I will use pseudonyms.

8. What are the possible benefits of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will contribute to the body of knowledge and building the perception regarding effective reverse knowledge transfer between the subsidiaries and their parent companies in the GCC.

9. Will my taking part in this project be kept confidential?

All the information that I collect about you during your participation in the research will be kept strictly confidential and will only be accessible to members of the research team. You will not be able to be identified in any reports or publications unless you have given your explicit consent for this. If you agree to us sharing the information you provide with other researchers (e.g. by making it available in a data archive) then your personal details will not be included unless you explicitly request this.

10. What is the legal basis for processing my personal data?

According to data protection legislation, I am required to inform you that the legal basis I am applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1) (e)). Further information

can be found in the University's Privacy Notice <https://www.sheffield.ac.uk/govern/data-protection/privacy/general>.

11. What will happen to the data collected, and the results of the research project?

I will save the data collected in SUMS Google drive and excel file, and a safety copy in an encrypted computer/external drive under password protection. I will also send any company descriptions to the participants or company to check in order to make sure that the company has been anonymised enough. I will use pseudonyms and file names to avoid any identification. I will never publish any personal data without the consent of the participants, and I will ensure that all participants are confidential, and I will not share their responses.

If this data was to be used for future research purposes, we will ask for your explicit consent for your data to be shared in this way.

12. Who is organising and funding the research?

This research is part of my PhD which is funded by Saudi Cultural Bureau. The funder of this study does not have access to the data.

14 Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University of Sheffield is responsible for looking after your information and using it properly.

15 Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by department of Management School.

16 What if something goes wrong and I wish to complain about the research?

If you wish to raise a complaint to the research Supervisor and you feel your complaint has not been handled to your satisfaction you can contact the Head of Department, who will then escalate the complaint through the appropriate channels. If the complaint relates to how your personal data has been handled, information about how to raise a complaint can be found in the University's Privacy Notice: <https://www.sheffield.ac.uk/govern/data-protection/privacy/general>.

17 Contact for further information

If you wish to obtain further information about the project please contact the researcher

Abdullah Alajmi

Email: AAlajmi4@sheffield.ac.uk

Address: 113 Clarkson Court, Hatfield, Hertfordshire, AL10 9GW

Phone number: +966555556356

Alternatively contact the director of studies:

Name: [Prof. Andrew Simpson](#)

E-mail: andrew.simpson@sheffield.ac.uk

Address: Sheffield University Management School, Conduit Road, Sheffield, S10 1FL, Room C092

Phone number: [0114 222 3247](tel:0114 222 3247)

All participants will be given a copy of the information sheet and a signed consent form to keep.

APPENDIX 3: Participant Consent Form

Reverse Knowledge Transfer from Multinational Subsidiaries to their Headquarters in the GCC – the mediating effects of social equity, transfer mechanisms, trust and willingness

<i>Please tick the appropriate boxes</i>	Yes	No
Taking Part in the Project		
I have read and understood the project information sheet dated 30/10/2019. (If you will answer No to this question please do not proceed with this consent form until you are fully aware of what your participation in the project will mean).	<input type="checkbox"/>	<input type="checkbox"/>
I have been given the opportunity to ask questions about the project.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to take part in the project. I understand that taking part in the project will include my participation to respond to the questionnaire survey.	<input type="checkbox"/>	<input type="checkbox"/>
I understand that my taking part is voluntary and that I can withdraw from the study at any time; I do not have to give any reasons for why I no longer want to take part and there will be no adverse consequences if I choose to withdraw.	<input type="checkbox"/>	<input type="checkbox"/>
How my information will be used during and after the project	<input type="checkbox"/>	<input type="checkbox"/>
I understand my personal details such as name, phone number, address and email address etc. will not be revealed to people outside the project.	<input type="checkbox"/>	<input type="checkbox"/>
I understand and agree that my words may be quoted in publications, reports, web pages, and other research outputs. I understand that I will not be named in these outputs unless I specifically request this.	<input type="checkbox"/>	<input type="checkbox"/>
I understand and agree that other authorised researchers will have access to this data only if they agree to preserve the confidentiality of the information as requested in this form.	<input type="checkbox"/>	<input type="checkbox"/>
I understand and agree that other authorised researchers may use my data in publications, reports, web pages, and other research outputs, only if they agree to preserve the confidentiality of the information as requested in this form.	<input type="checkbox"/>	<input type="checkbox"/>
I give permission for the questionnaire survey data that I provide to be deposited in data repository so it can be used for future research and learning	<input type="checkbox"/>	<input type="checkbox"/>
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.	<input type="checkbox"/>	<input type="checkbox"/>

Name of participant [printed]

Signature

Date

Name of Researcher [printed]

Signature

Date

Abdullah Alajmi

Abdullah

30/10/2019

Project contact details for further information:

Name: Prof. Andrew Simpson

E-mail: andrew.simpson@sheffield.ac.uk

Address: Sheffield University Management School, Conduit Road, Sheffield, S10 1FL, Room C092

Phone number: 0114 222 3247

Thank you for taking part in the project.