

Do Barriers Exist to the Transfer of Tacit Knowledge?

An Exploration into the area of Knowledge Transfer

Elizabeth Traynor

MA Human Resource Management

National College of Ireland

Submitted to the National College of Ireland, September 2014

Abstract

Title: Do Barriers Exist to the Transfer of Tacit Knowledge? An Exploration into the area of Knowledge Transfer

Author: Elizabeth Traynor

Nature of the study: This study is an exploration into the area of knowledge transfer. It primarily seeks to investigate whether barriers to tacit knowledge transfer within organisations. This study also examines the importance and relevance of knowledge transfer, the differences between tacit and explicit knowledge, and whether changing tacit knowledge into explicit knowledge can be of benefit to an organisation.

Methodology: A qualitative approach was adopted for this research through the use of a semi structured interview process and a sample size of eleven participants.

Principle findings: The primary barriers to tacit knowledge have been identified by the participants of this study as time, language, perception and trust. As well as this it is noted that individuals are aware of the importance and relevance of tacit knowledge, and the differences between tacit knowledge and explicit knowledge have been explored. Finally it has been found that while participants feel as though tacit knowledge is important to the organisation, they do not see the need to write this information down in order to turn it into explicit knowledge.

Declaration

Name: Elizabeth Traynor

Student Number: X13101064

Degree for which thesis is submitted: MA Human Resource Management

- (a) I declare that the work has been composed by myself.
- (b) I declare that all verbatim extracts contained in the thesis have been distinguished by quotation marks and the sources of information specifically acknowledged.
- (c) My thesis will be included in electronic format in the College Institutional Repository TRAP (thesis reports and projects)
- (d) I declare that no material contained in the thesis has been used in any other submission for an academic award.

Signature: _____

Date: _____

Acknowledgements

I would like to thank my family and friends, for their unwavering support for which I am truly grateful.

Thank you to the participants of the interviews which I conducted, without them this research would not have been possible.

Finally, I would like to thank my supervisor, Dr. Caitriona Hughes, for her guidance, support and focus.

Table of Contents

Abstract.....	i
Declaration.....	ii
Acknowledgements.....	iii
List of Figures.....	vi
1 Introduction.....	1
2 Literature Review.....	3
2.1 Knowledge.....	3
2.2 Explicit Knowledge.....	6
2.3 Tacit Knowledge.....	8
2.4 Tacit to Explicit.....	9
2.5 Theories of Tacit Knowledge.....	10
2.6 Barriers to Tacit Knowledge Transfer.....	14
2.7 Conclusion.....	18
3 Methodology.....	20
3.1 Research Question.....	20
3.2 Appropriate Research Methods.....	21
3.2.1 Research Philosophy.....	21
3.2.2 Research Approach.....	23
3.2.4 Quantitative Research.....	24
3.2.5 Qualitative Research.....	24
3.3 Chosen Method of Research.....	25
3.4 Data Collection Method.....	25
3.5 Sample Selection.....	26
3.6 Data Analysis Method.....	26
3.7 Limitations.....	27
3.8 Ethics.....	28
4 Findings.....	29
4.1 Do Barriers Exist to Tacit Knowledge Transfer?.....	29
4.2 Importance and Relevance of Knowledge Transfer within the Organisation.....	33
4.3 The Differences between Tacit and Explicit Knowledge.....	34

4.4 Is Changing Tacit Knowledge into Explicit Knowledge a Benefit to an Organisation?	35
4.5 Conclusion	36
5 Discussion	37
5.1 Barriers to Tacit Knowledge Transfer	37
5.2 The Importance and Relevance of Knowledge Transfer	39
5.3 The Differences between Sharing Tacit and Explicit Knowledge	40
5.4 Changing Tacit Knowledge into Explicit Knowledge	42
6 Conclusion and Recommendations	44
6.1 Conclusion	44
6.2 Recommendations	45
Bibliography	47
Appendix	52
Semi-Structured Interview Questions	52

List of Figures

Figure 1 Polanyi's Theory of Tacit Knowledge	12
Figure 2 The Spiral of Knowledge.....	14
Figure 3 Barriers to Tacit Knowledge Transfer	33

1 Introduction

Business today is about being fast, innovative and competitive in order to survive in such a turbulent economy, the main issue for organisations is for how they can achieve this resilient nature and be successful within their industries. Switzer (2008) refers to how an organisation's most valuable has evolved from being physical capital to knowledge capital.

Liyange, Elhag, Ballal & Li (2009) explain that due to the complexity of knowledge, it makes it difficult to imitate and therefore has the potential to produce long-term, sustainable competitive advantage for an organisation. This notion of knowledge aiding the competitive advantage of an organisation automatically makes it something which organisations should leverage and strive to utilise. Essentially, having an organisation where knowledge transfer is a part of the culture and encouraged is essential for them to survive in modern society.

'We know more than we can tell' are words by Polanyi (1974). These words spark thought for wanting to understand not only the relevance of knowledge transfer and why it is of such importance to an organisation, but also the concept of knowledge as a whole and what it is composed of. The words by Polanyi (1974) provoke interest in the knowledge which cannot be explained easily – which is referred to as tacit knowledge – and to understand how this type of knowledge can benefit an organisation.

With the importance of knowledge transfer and tacit knowledge clearly highlighted by previous literature as being important to organisations, it is interesting to note that not much previous literature makes references to the difficulties of actually transferring the knowledge, specifically that of tacit knowledge. The likes of Cumberland & Githens (2012) and Haldin-Herrgard (2000) have made attempts at this and explain how it is difficult due to a number of factors including factors such as language, value and perception among others. However with this, there is a clear need for more investigation; to explore what the barriers to tacit knowledge are in relation to the individuals themselves within organisations. As well as this, the researcher seeks to explore whether individuals within organisations realise the relevance and importance of knowledge transfer itself.

This research begins with a literature review. This will consist of secondary research, which will highlight the underpinnings of previous research on the topic chosen by the author. It will begin with a focus on defining knowledge itself. Then it will highlight and explore the two categories of knowledge; explicit knowledge and tacit knowledge. Upon gathering an understanding of the two categories of knowledge, the notion of transforming tacit knowledge into explicit knowledge is presented. Following on from this, the theories of tacit knowledge will be discussed. Finally within the literature review, previous research based on the barriers to tacit knowledge will be presented and discussed.

In the following chapter of this research, the methodology will be presented. This chapter will begin by highlighting the research question and sub objectives. Following on from this, the different research methods will be analysed in order to choose the one most suited to this study and provide both reason and justification for it. The data collection method of this research will also be outlined in this chapter, as well as a description of the sample selection and also the data analysis method used. Finally, the limitations of the research will be identified and in addition to this, the ethical standing of this research will be presented.

The next chapter will present the findings of the primary research which has been undertaken. This chapter will be structured based on the research question and sub objectives. It will provide insight into the data which has been collected on each of the objectives of the researcher and provide the basis for the subsequent chapter which will consist of the discussion.

As previously mentioned, the penultimate chapter of this research will provide a discussion on the research undertaken. This chapter will entail discussing the findings in relation to the previous literature on the topic. It will allow the researcher to develop similarities or differences on the previous literature in order to gather if the information agrees with or contrasts with it.

The ultimate chapter of this research is the conclusion and recommendations. This will provide a conclusion to the research and also suggest possibilities for further research.

2 Literature Review

This literature review will firstly seek to define knowledge by examining previous literature surrounding the area. Following on from this, the author will provide an understanding of the two categories of knowledge; both explicit and tacit knowledge, which will then lead to examining the importance of transferring tacit knowledge to explicit knowledge. Subsequently, relevant theories of tacit knowledge shall be presented and examined. Finally, within this literature review the author will present the barriers to tacit knowledge transfer as indicated by previous research.

The aim of this literature review is explore the topic of knowledge in order to subsequently gather a broad scope of insight into the area of knowledge transfer through providing a synthesis of previous relevant literature undertaken. Through this, the researcher aims to gain a deep understanding of the relevant literature and the topic of knowledge transfer, with the aim of identifying information gaps which are prevailing and of interest for the purpose of this study.

2.1 Knowledge

The concept of knowledge is not an easy one to define. Armstrong (2009) defines knowledge as ‘what people understand about things, concepts, ideas, theories, procedures, practices and ‘the way we do things around here’. Therefore it can be interpreted that upon having knowledge, people essentially have the skills to do what is required of them within an organisation, and, through the transfer of knowledge, skills can be both improved upon and new skills may be learned, research by Lyons (2005), Yen, Lee & Koh (2001) and De Jong & Den Hartog (2007) support this notion. According to Liyange et al (2009), knowledge does not merely just comprise of what is already known or understood, knowledge also encompasses the actual transfer of multiple skills and the building up of expertise through experience, training and education over time – all of which remain with the individual. This is the grounding for the importance of knowledge transfer.

Upon examining the definition of knowledge, it is clear that it is a rather complex topic and one which is crucial to be understood so as to understand it’s importance. Alavi & Leidner (2001) explain how knowledge can be understood from various different perspectives; a state of mind, an object, a process, a condition of having access to information and a capability. Knowledge being a state of mind refers to

abilities that have been gained through experience or study, essentially ‘personal knowledge’, which can be applied and adapted to organisational needs (Alavi & Leidner, 2001). The second perspective of knowledge being an object encompasses that knowledge can be stored and manipulated (Alavi & Leidner, 2001). The thought behind this is with relation to an organisation, so that knowledge can be associated with information access, and therefore an organisation may build up and manage ‘knowledge stocks’ (Liyange et al, 2009). The third perspective of knowledge being a process derives from knowledge being a process of applying expertise (Alavi & Leidner, 2001); it implies that it can be a process of creating, sharing and distributing knowledge (Liyange et al, 2009). Knowledge being a condition of having access to information entails that knowledge must be organised to facilitate access and acquire information (Alavi & Leidner, 2001). The fifth view of knowledge as it being a capability denotes that the capacity to use knowledge and information, learning and experience to decide what information is necessary for the future success and competitive advantage of an organisation (Alavi & Leidner, 2001).

Through looking at the different perspectives of knowledge, it is clear that each of the combined perspectives can contribute to providing a distinct advantage to an organisation. This is emphasised by Switzer (2008) who states that an organisation’s most valuable asset has switched from physical capital to knowledge capital. Switzer (2008) explains that it is empirical for organisations to understand the importance of knowledge and knowledge transfer; this is due to the need for organisations to be continuously innovating, upgrading, learning and developing levels of efficiency to compete and succeed. Smale (2008) looks at the importance knowledge and knowledge transfer on a global scale with relation to multinational companies which are increasingly prominent today. Smale (2008) emphasises how the ability to transfer and integrate knowledge will ultimately improve organisational performance and aid in retaining expertise and aid organisations to gain a competitive advantage. Blomkvist (2012) provided research which shows that modern organisations are often likely to be multinational and dispersed both strategically and technologically which requires a high level of knowledge transfer. Essentially, Blomkvist (2012) found that organisations should be viewed as social communities that specialise in knowledge management and in these communities competitive advantage is achieved through being able to successfully manage the levels of knowledge transfer.

However, in order for any organisation to successfully manage high levels of knowledge transfer, or to understand the notion of knowledge transfer itself so as to use it successfully and efficiently; organisations themselves, individuals and researchers should be aware of what it is made up of and also the categories and, more importantly, the complexities associated with it.

Most commonly knowledge is combined and differentiated into two categories – explicit and tacit. Rai (2011) explains that explicit knowledge is the knowledge that can be written down or articulated through formal language, such as within manuals, procedures, guidelines or reports, whereas tacit knowledge is the category of knowledge that cannot be written down, which is difficult to articulate through formal language and which is embedded in an individual's experiences as well as their values or emotions.

The metaphor of 'explicit islands in a tacit sea', presented by Hicks, Dattero & Galup (2007), can be utilised in this instance to further understand the difference between the two categories and also their interdependence of one another. It refers to explicit knowledge being comprised of three islands: explicit knowledge, data and information. These are represented by separate islands due to explicit knowledge being primarily distinguishable. The tacit sea in this metaphor is a symbol of the information surrounding explicit knowledge and it is what is needed to preserve the island – essentially creating, maintaining and executing explicit knowledge, data and information (Hicks et al, 2007).

Explicit and tacit knowledge are important as they provide the framework for which knowledge can be transferred, Rowe & Widener (2011), Chen (2004) and Rhodes, Hung, Lok, Lien & Wu (2008) support this and emphasise how by transitioning and distinguishing between the two categories effectively can allow an organisation to be innovative, efficient, competitive and enduring. Previous research by Becerra, Lunnan & Huemer (2008), Lee & Vakoch (1996) and Larkin & Burgess (2013) however also highlight the complexities which surround the task of transferring knowledge and how there are barriers which exist with regard to the transfer of explicit and tacit knowledge – particularly that of tacit. The importance and the complexities of explicit and tacit knowledge will be subsequently examined and explained upon further on in this literature review.

2.2 Explicit Knowledge

Explicit knowledge has been defined by Armstrong (2009) as ‘knowledge that can be codified- it is recorded and available and is held in databases, in corporate intranets and intellectual property portfolios’. Another explanation, possibly which could be referred to as more appropriate for a ‘knowledge researcher novice’, is provided by Smith (2001) as data, information or ‘know-how’ which is readily communicated and shared through print, electronic methods or other formal means. Research from Herschel, Nemati & Steiger (2001), Coakes (2006) and Huang & Shih (2011) support the notion of explicit knowledge being the information that can be transferred promptly through words or code, and also acquired by both new and old employees at different levels within an organisation, at different times and also in different organisational situations. Wah (1999) gives an example of explicit knowledge being used within Ernst & Young. Wah (1999) explains how the organisation created a database of their global ‘best practices’, which is derived through sharing and documenting knowledge – this is explicit knowledge as it is written down and documented. It is shown by Wah (1999) that Ernst & Young use this database to provide different approaches and solutions to potential problems which may arise. The organisation views explicit knowledge as a resource and fundamentally different ‘objects’ in which templates can be constructed to use within any context and also to solve many organisational problems which might occur (Wah, 1999).

The importance of explicit knowledge has been highlighted by much previous research. Skully, Buttigieg, Fullard, Shaw & Gregsonl (2013) explain how explicit knowledge within an organisation provides the opportunity to readily and clearly learn new skills and knowledge, utilise varied work paths and allow for exposure to new perspectives. Essentially, the combinations of these attributes are implied to lead to increased creativity and innovation (Skully, et al., 2013). Stefaniak, Willems & Meulemans (2008) researched and confirmed that explicit knowledge is important for the acquisition and subsequent completion of routine structures within an organisation. Bloodgood & Chilton (2012) demonstrate how the use of explicit knowledge is of a key benefit to individuals within an organisation who are in the early stages of learning, as it is easier to comprehend and understand than tacit knowledge. Bloodgood & Chilton (2012) support this notion through explaining

how while in a novice state, workers prefer factual explanations of concepts, procedures and interactions in order to fully comprehend their role and duties within the organisation. Wickramasinghe & Davison (2004) depict the importance of explicit knowledge for the use of evaluating current processes and procedures within an organisation to see if any faults lie within them so that any modifications may be made to support the primary need of reaching organisational goals.

While explicit knowledge, in theory, is easy to capture and transfer due to its tangible nature – there are still barriers which exist in the transfer of this category of knowledge. Stevens, Millage & Clarke (2010) explain how one such barrier is that of an individual's personal interpretation of explicit knowledge which may lead to misunderstanding and fundamentally gathering the wrong knowledge which is necessary for a role within an organisation. Nonetheless, explicit knowledge can be transferred easily through manuals, templates, blueprints and does not require socialisation but simply an understanding of written material (Dhanaraj, Lyles, Steensma & Tihany, 2004). Dhanaraj et al (2004) argue that over time within an organisation, explicit knowledge transfer will decrease, due to the need for clarification over time decreasing as the knowledge has already been absorbed from an individual with no need to reflect. In contrast to this, Jasimuddin, Klein & Connell (2005) explain how the organisation must constantly evolve and introduce new methods, skill sets and practices, which all require explicit knowledge transfer for competitive advantage.

It is evident that explicit knowledge is essentially the knowledge which can be written down, however this omits the knowledge which cannot be transferred through written or formal means. This knowledge is the one which is not easily documented and cannot be transferred through codified means; it is engrained within a person from experience and various skills which have been learned over time (Smedlund, 2008). The knowledge is intangible and includes aspects such as personal beliefs, values and perspectives (Nonaka & Takeuchi, 1995). This gives rise to tacit knowledge which is best transferred through personal communication – which poses a greater challenge (Hutzschenreuter & Hortkotte, 2010), which will be discussed in the subsequent section of this research.

2.3 Tacit Knowledge

Tacit knowledge is explained by Jasimuddin et al (2005) as being derived from the experience of individuals who possess it, making it highly distinctive and more difficult to explain and demonstrate, compared to explicit knowledge which can be articulated or written down. Bhardwaj & Monin (2005) compare tacit knowledge to being like an iceberg – with ten percent of it being above water and ninety percent being below water.

Nonaka & Takeuchi (1995) define tacit knowledge as being “personal, context-specific, and therefore hard to formalize and communicate”. Nonaka & Takeuchi (1995) explain how tacit knowledge is deeply rooted within not only an individual’s own experience but in their values, norms, beliefs or emotions. Nonaka & Takeuchi (1995) places tacit knowledge into two categories: technical and cognitive. In referring to technical, this is described as “informal and hard-to-pin down skills”; an example is given of a master craftsman who, through years of experience, has become a craft expert with “knowledge at his fingertips” (Nonaka & Takeuchi, 1995). The cognitive category refers to inherent mental models, perceptions and beliefs which are on a subconscious level that are taken for granted (Nonaka & Takeuchi, 1995).

Chen & Mohamed (2010) explain how tacit knowledge should be used within an organisation as a tool for creating new knowledge and capabilities. This derives from Chen & Mohamed (2010) analysing how tacit knowledge will develop internal competencies and meet current and future goals. Chen & Mohamed (2010) also highlight how tacit knowledge enables an organisation to protect core competencies from competitors, in this context it is being referred to as the skills, expertise, judgement, experience and social networks. Due to tacit knowledge being on such a personal level and based on context-specific knowledge which is essentially embedded into an organisation – this makes it difficult to transfer or imitate (Chen & Mohamed, 2010). The efficient use of this knowledge is crucial to an organisation due to competitors needing to conduct similar experiences in order to collect similar tacit knowledge which takes a great deal of time to perfect, as explained by Gottschalk (2005). Fundamentally, it can be gathered that the importance of tacit knowledge lies in the notion of it creating a ‘barrier’ against imitation due to the difficult and timely nature of recreating it.

Trust, social and cultural influences, shared goals, and early involvement are all factors which allow for tacit knowledge transfer (Foos, Schum & Rothenburg, 2006). Foos et al (2006) explain how trust is a factor due to the fact that, while explicit knowledge can be influenced by contractual agreements and is formally written down, tacit knowledge is transferred from person to person – having trust within this connection reduces risk and uncertainty of acceptance or miscommunication. Social and cultural influences also tie into the factor of trust – similar cultural and social stances between individuals allows for trust to be built and thus indicates the potential for a high level of mutual understanding and ability to transfer tacit knowledge (Foos, et al., 2006). Shared goals and values lead to a relationship where tacit knowledge can be more willingly exchanged, it is also suggested that shared goals and values create a more open environment for tacit knowledge exchange (Foos, et al., 2006). Foos et al (2006) also suggest that early involvement is a factor for tacit knowledge transfer as this leads to a long term relationship which has built up trust over time. Foos et al (2006) justify this early involvement with the example of the early phases of product development within a firm, this is where ideas and tacit knowledge exchange is crucial for success.

With previous research showing the importance of tacit knowledge and highlighting that it is more difficult to transfer than explicit knowledge, much research emphasises the need for organisations to transform tacit knowledge into explicit knowledge, this notion is one of interest as because of the complexity surrounding the transfer of tacit knowledge itself, the transfer of tacit into explicit must be of even greater complexities – this will be explored next.

2.4 Tacit to Explicit

A main challenge with knowledge transfer is how to turn tacit knowledge into explicit knowledge (Armstrong, 2009). Foos et al (2006) suggest that tacit and explicit knowledge should not be seen as two separate entities, but they should work together with the aim of tacit knowledge being transformed into explicit knowledge. Stevens et al (2010) highlight how employees within an organisation gather an abundance of knowledge that is suited to their organisation's operations, structure and culture – this is due to a mixture of both tacit and explicit knowledge. Dhanaraj et al (2004) supports this by simply explaining that explicit knowledge provides the building blocks to learning while tacit knowledge provides the glue.

The importance of transferring tacit to explicit knowledge has been highlighted by much previous research. Stover (2004) explains how once tacit knowledge is converted to explicit knowledge, the ‘owner’ of the tacit knowledge does not need to be present for knowledge transfer and there is less risk of an organisation losing its ‘knowledge capital’ if an individual perhaps is to leave the organisation. Choo (2000) denotes that once a piece of knowledge has become defined through writing it down it becomes an intellectual asset which can be protected and kept within the organisation. Choo (2000) also highlights how converting tacit to explicit knowledge allows for reflection, criticism and sequentially the creation of new knowledge.

While in theory, the transfer of tacit knowledge into explicit knowledge seems to be of a benefit to the organisation, the literature fails to present the viewpoint of if the two should be seen as separate entities which should be harnessed individually amongst individuals as they both have their own unique benefits to the organisation. In an ideal world, it may be that turning tacit knowledge into explicit knowledge is a simple solution to solving the issues of transferring it in the first instance. However, if tacit knowledge is seen as ‘the glue’ to the building blocks of learning – it is interesting to note whether it should be altered into a different category of knowledge or not, for fear of losing the unique attributes that are contained within it and the individuals that possess the knowledge itself.

2.5 Theories of Tacit Knowledge

The importance of knowledge has been established, as well as the fundamental categories of knowledge; tacit and explicit. In order to understand how this can be applied in an organisational context the theories of tacit knowledge will be examined. Particular focus will be made on tacit knowledge as it is shown previously that this is more complex than explicit knowledge and therefore it can be assumed that this knowledge is more difficult to distinguish and recognize.

The main theories of tacit knowledge are presented by Polanyi (1974) and also Nonaka (1995). These models are the pivotal, prevailing and fundamental theories used in order to understand the transfer of tacit knowledge and also add to understanding the topic of knowledge as a whole.

Polanyi (1974) originally explained how tacit knowledge can be referred to as “personal knowledge” as it is a fusion of both “personal participation” in acts of

understanding and also ‘objectivity’ with regards to determining the implication of the knowledge being transferred. Polanyi (1974) also refers to tacit knowledge as encompassing intellectual commitment to any process whether practical or theoretical, which is important for management within organisations to be aware of with regard to the productivity of their employees.

Figure 1 represents Polanyi’s (1974) theory of tacit knowledge. It comprises of distinguishing between focal awareness and subsidiary awareness – focal awareness entails the knowledge which is always fully conscious, and which individuals may understand using a practical example provided by Polanyi & Prosch (1975) of an individual being aware of hammering a nail – the drive to hammer the nail is the focal awareness, essentially the task which the individual is attending to. Whereas, subsidiary awareness encompasses the awareness of the feelings in the hand and using these feelings to perform the action. The two of these are mutually exclusive and are merged into each other, and this is where the saying by Polanyi (1974), “we can know more than we can tell” derives from - this reverts back to the reason for the transfer of tacit knowledge being so important between individuals, to attempt to utilise the knowledge that they possess which they may not be fully yet aware of. Distinguishing between focal awareness and subsidiary awareness allows individuals to amalgamate tacit information to support the overall objective (Brohm, 2006).

Essentially, this model depicts that in order to transfer tacit knowledge, an individual must have a distinct knowing and understanding of the knowledge which is to be transferred – this involves focusing on what is explicitly known and using it as a background and a grounding to transfer the tacit knowledge efficiently. Figure 1 shows how a mixture of both tacit clues and tacit interference lead to focus. In this model tacit clues refer to notions such as body image, images, and perceptions while tacit inference incorporates the likes of integrative and performative skills. The idea of this is that in the act of knowing, an individual can have several different perspectives which structure perception – this perception leads to the potential for people to see things in similar ways and exchange tacit knowledge more effectively, as explained by Brohm (2006).

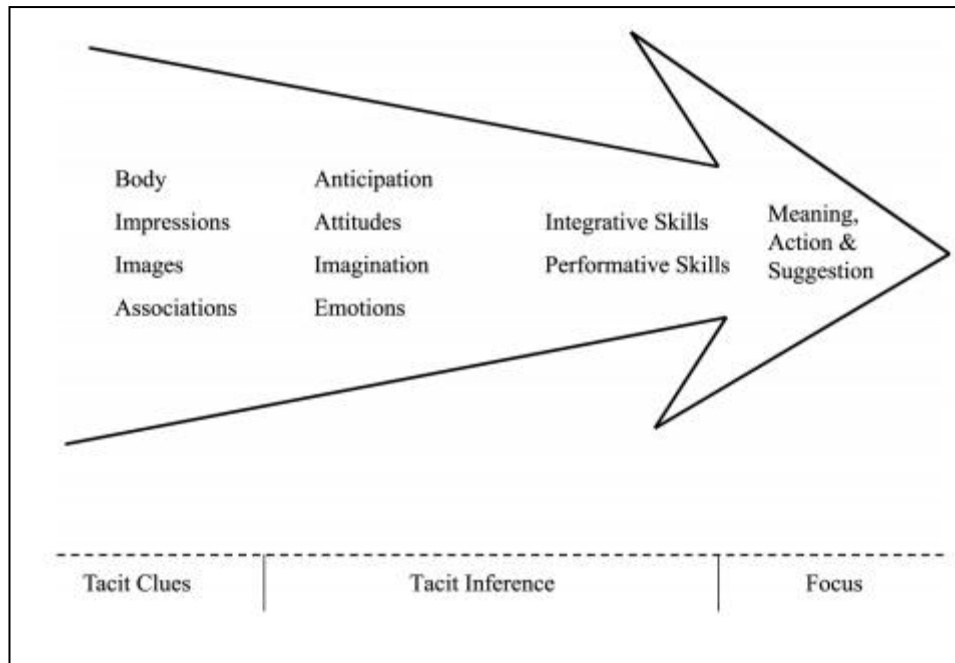


Figure 1 Polanyi's Theory of Tacit Knowledge

Nonaka (1991) presented a theory which suggests that tacit knowledge is a key factor of organisational success, as it is engrained within the individuals which make up the organisation and go about the day to day tasks – this is of particular interest as Nonaka (2007) also summarises an organisation as not simply being a machine but refers to it as a living organism with a collective sense of identity and purpose, emphasising that an organisation should endeavour to be a knowledge-creating organisation to succeed (Nonaka, 2007). With this, Nonaka presents the theory of ‘The Spiral of Knowledge’, this theory represents how an individual’s personal knowledge should be endeavoured to be transformed into organisational knowledge which is beneficial and valuable to the organisation in order to reach organisational goals and success. Essentially, it is a contrast to Polanyi’s theory as it emphasises the interdependence of both tacit and explicit knowledge and how the interaction with one another creates a spiral (McAdam, et al., 2007), as seen in Figure 2. To understand the theory of the spiral of knowledge – Nonaka (2007) uses the example of how an organisation which was having difficulty perfecting their product, a bread making machine, through an intense analysis, a solution was found in the form of contacting experts in bread making and using their personal knowledge, which had been gained through experience and mastering of the craft, to find what was lacking in their product and how they could improve and perfect it (Nonaka, 2007). This illustrated movement between the different categories of knowledge – tacit and

explicit. The explicit knowledge in this case was not providing the results which were needed for the organisation to move forward, and through the utilisation of the tacit knowledge, possessed by the baker which was highly personal, their goals were achieved and used to create a new product which surpassed expectations (Nonaka, 2007).

The spiral of knowledge is also known as the SECI (socialization, externalisation, combination and internalization) model. The SECI model, as seen in Figure 2 describes four sections of knowledge creation which organisations need to support, Nonaka uses this model to explain how the different phases occur while tacit and explicit knowledge is being transferred and interacts with one another (Lee & Kelkar, 2013). In this model, socialization is the conversion of tacit to tacit knowledge through shared personal experiences (Lee & Kelkar, 2013), which is known to be a relatively restricted form of knowledge creation as individual who transfers the knowledge does not get any systematic insight into the knowledge due to the fact that it never becomes explicit. Externalization is the conversion of tacit knowledge to explicit knowledge (Lee & Kelkar, 2013), this allows individuals to convert personal experiences and personal knowledge into knowledge which can be articulated and shared. Combination is the conversion of explicit knowledge to explicit knowledge and involves combining discrete pieces of explicit knowledge into different forms so that the knowledge pool may be increased. Internalization is the process by which explicit knowledge is converted into tacit knowledge – this is where an individual becomes familiar with codified, explicit knowledge and it becomes internalized and therefore personal, implicit knowledge – which can give rise to a new spiral of knowledge in itself (Lee & Kelkar, 2013). Lee & Kelkar (2013) explain how this model allows for innovation and product development in an organisation. Karim, Razi & Mohammed (2012) refer to how the SECI model is useful in order to implement knowledge management procedures within an organisation which is endeavouring to promote and utilise knowledge creation and transfer, which is supported by Lopez-Saez, Navas-Lopez, Martin-de-Castro & Cruz-Gonzalez (2010) who depict that it is of benefit due to the possibility for using the model to extend an organisation's knowledge pool through external knowledge acquisition.

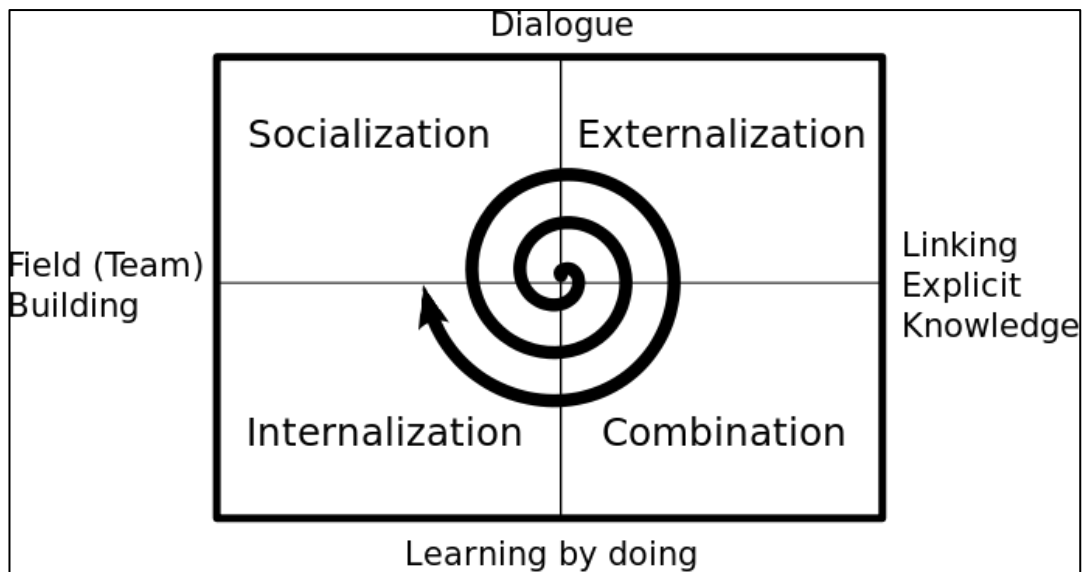


Figure 2 The Spiral of Knowledge

It can be concluded that the work of Polyani and Nonaka provide insight into how tacit knowledge can be transferred and understood through the use of different models, however they fail to address the needs of businesses today in an ever increasingly diverse global business place. As previously discussed, research has been undertaken which review the importance of knowledge transfer itself, however not many new models have been presented, other than ones which are extensions of Nonaka's model such as an extended SECI model, provided by Melkas & Harmaakorpi (2008), and also the ontological shift SECI model, provided by Wu, Senoo & Magnier-Watanabe (2010), which poses the question as to whether the models of Polyani and Nonaka are still relevant.

2.6 Barriers to Tacit Knowledge Transfer

It is clear from previous research by the likes of Rai (2011), Chen & Mohamed (2010) and Gottschalk (2005) that it is difficult to transfer tacit knowledge. As outlined by the previous research, this is due to notions of tacit knowledge being difficult to transfer due to it being highly personalised, rooted within an individual through their own experiences and skills which have been developed over time – experiences and skills which are difficult to formulate or write down.

Cumberland & Githens (2012) propose that there are five barriers which exist that are the main impediments to successful and efficient knowledge transfer: trust, maturation, communication, competition and culture.

Cumberland & Githens (2012) present the notion of ‘knowledge sharing hostility’ which is based upon individuals considering others as friend or foe – in this case foe. Tacit knowledge transfer requires individuals to be fully engaged and to have a level of trust amongst each other (Cumberland & Githens, 2012); due to the complexity of trust between certain individuals it can pose as a challenge as the transfer of tacit knowledge is so personal and is transferred through personal communications. Cumberland & Githens (2012) discovered that as an organisation goes through changes in structure, leaders and processes, there poses a threat for less collaboration among individuals and less trust within the organisation, thus being a barrier for tacit knowledge transfer. Vakola, Soderquist & Prastacos (2007) highlight that in times of change it is imperative for communication to be encouraged and information to be exchanged so that change may be successful and allow an organisation to endure it and become resilient for the future. Holste & Fields (2010) support this in showing that trust needs to be developed in two forms; affect-based and cognitive-based. Affect-based trust concerns mutual concern and care between individuals within an organisation, while cognitive-based trust concerns reliability and competence of individuals within an organisation (Holste & Fields, 2010). Holste & Fields (2010) research showed that trust needs to be developed within the organisation through direct engagement, particularly with relation to situations which demonstrate interdependency and through collaborative experiences.

Organisations which are in the mature stage of their life cycle are likely to oppose the adoption of new knowledge as they are set in the ‘old way of doing things’, where as organisations which are in the earlier stage of their life cycle are more likely to embrace new knowledge and the creation of new ideas (Cumberland & Githens, 2012). This is supported by Dhanaraj et al (2004) who demonstrate how within mature organisations the need for interpreting will reduce along with the need for clarification, control and motivation – presenting a barrier to the transfer of tacit knowledge and also the potential advantages which could be of use to the organisation through the exchange of such knowledge.

Within an organisation, information exchange is crucial; Cumberland & Githens (2012) display how communication is crucial to tacit knowledge transfer which allows for the potential to facilitate improvements which may drive sales growth, margin improvement, labour savings and overall efficiency and motivation. Seidler-

de Alwis & Hartmann (2008) highlight how communication problems can arise with the transfer of tacit knowledge due to focusing on the specialisation of work – it is argued that the higher the degree of specialisation, the organisation's perspective is said to be isolated and narrower with less forms of communication. Park & Vertinsky (2012) suggest that communication is crucial to articulate and transfer tacit knowledge, as well as examining how positive and effective communication increases the closeness of relationships and trust within the organisation – promoting effective tacit knowledge transfer.

Competitiveness both within an organisation and with rival organisations can act as a barrier to the willingness to share tacit knowledge due to competitive tension (Cumberland & Githens, 2012). Borges (2013) identifies how an organisation which has a culture that promotes competitiveness can sometimes be interpreted as being aggressive, lacking in trust and possessing negative personality traits – such an organisation is said to affect an employee's willingness to share their knowledge and expertise whether it be for personal gain or to hinder the gain of others.

Cumberland & Githens (2012) states that the culture of an organisation either simply dictates or influences whether or not knowledge can or will be shared. Visvalingam & Manjit (2011) explain how the transfer of tacit knowledge differs between the four different types of culture; clan, adhocracy, hierarchy and market. It is shown that clan and adhocracy cultures are seen to facilitate the transfer of tacit knowledge where hierarchy and market cultures hinder this behaviour.

Subsequently to the barriers proposed by Cumberland & Githens (2012), different views of the barriers which exist amongst the transfer of tacit knowledge have been outlined by Haldin-Herrgard (2000) and these include; perception, language, time, value and distance.

According to the research by Haldin-Herrgard (2000), the main difficulties involved with transferring tacit knowledge revolve around both perception and language. Due to tacit knowledge being majorly internalised and ingrained within an individual this means that they may not be aware of the skill or knowledge which they possess and they merely possess it on a subconscious level are therefore unable to transfer it (Haldin-Herrgard, 2000). This has an effect on how an individual is to express or articulate the knowledge – if the knowledge is intrinsic and natural, according to

Haldin-Herrgard (2000), individuals find it hard to articulate in the first instance, and with more experience and knowledge being continuously being acquired this is said to become simultaneously more difficult to share and transfer.

Difficulties with language and tacit knowledge transfer also lie around the diverse use of terminology which is acquired throughout experience within an organisation – Haldin-Herrgard (2000) explains how in order for the tacit knowledge to be transferred effectively, a joint language needs to be established which can be shared on all platforms and throughout the whole of an organisation.

Following on from this, there is the difficulty of time in relation to the sharing of tacit knowledge. Haldin-Herrgard (2000) explains that in modern business time is crucial and speed is of the utmost importance, as tacit knowledge is gained through experience and reflection over time, this is something which may cause difficulties as organisations are not willing to give the time to allow this to happen naturally in order for the best knowledge to be shared and transferred efficiently.

According to Haldin-Herrgard (2000), value is always able to be measured in some way in order for an organisation to consider it positively. This leads to difficulties with the transfer of tacit knowledge as the knowledge itself may not necessarily be considered to be valuable, like intuition, and with methods that have been written down and tested being preferential to be relied upon (Haldin-Herrgard, 2000). Also in relation to value, knowledge is seen as valuable with regards to power (Haldin-Herrgard, 2000). This results from individuals considering that the more knowledge which they possess, the more power they will have, and therefore individuals are more likely to reserve their knowledge and keep it to themselves in order to have that power over others – hence this being a barrier to tacit knowledge transfer (Haldin-Herrgard, 2000). This is similar to the barrier presented by Cumberland & Githens (2012) in relation to competition as individuals see using their knowledge as a tool for their own personal gain rather than to share throughout the organisation and promote overall organisational success.

As previously mentioned, Blomkvist (2012) provided research which showed the need for considerably high levels of knowledge transfer due to the dispersion of organisations both strategically and technologically, this transpires and supports the notion that distance is a relevant barrier to the transfer of tacit knowledge (Haldin-

Herrgard, 2000). This is predominantly a barrier due to the fact that tacit knowledge is most effectively shared through face to face interaction, while explicit knowledge can more easily be written down and shared through technological methods which are relevant to dispersed or global organisations (Haldin-Herrgard, 2000).

Upon reviewing the previous research by both Cumberland & Githens (2012) and Haldin-Herrgard (2000) it is clear to see that there are a substantial number of barriers to tacit knowledge transfer which have been identified. It is interesting to note, however, that while these studies have highlighted the barriers – no considerable amount of research has been conducted to investigate these barriers within an organisation and to examine the effects which they actually have on the overall running of the day to day activities.

2.7 Conclusion

This literature review has provided an exploration into previous research on the topic of knowledge and knowledge transfer.

Firstly it has been found that knowledge is what people understand about different things and essentially the way things are done in any given situation. When an individual has knowledge, they can utilise it and pass it on to other individuals in order to improve someone else's skills and then it can equally allow for an individual to improve their own skills through someone passing knowledge onto them (Armstrong, 2009). It has been gathered that knowledge is an extremely complex topic yet one which is of great importance to understand as when used efficiently and effectively it can have major advantages for an organisation with regards to innovation, competitive advantage and ensure that an organisation can utilise 'stocks of knowledge' (Alavi & Leidner, 2001).

The two categories of knowledge have been identified through this literature review; explicit knowledge and tacit knowledge. Explicit knowledge has been discovered to essentially be the knowledge which can be formalised and codified, and easily transferred due to it being able to be written down (Skully, et al., 2013). While it has been noted that this form of knowledge is easy to transfer, barriers have still been identified. The main barrier toward explicit knowledge transfer is that of misinterpretation (Stevens, et al., 2010), yet it is still said to be easier compared to tacit knowledge transfer, once it is efficiently codified.

Tacit knowledge is the more complex category of knowledge due to it being derived from the experience of individuals, and being extremely personal (Jasimuddin, et al., 2005). This knowledge is said to be of a benefit to an organisation as a tool for developing internal competencies as well as to protect core competencies and therefore lead to a competitive advantage (Chen & Mohamed, 2010).

It has been identified from previous research that transforming tacit knowledge into explicit knowledge could be beneficial to an organisation so that it can be easily passed on and kept within an organisation – so that they essentially keep the ‘knowledge capital’ (Stover, 2004). The research fails to see the two categories as separate entities due to their unique attributes.

The theories of tacit knowledge, presented by Polanyi (1974) and Nonaka (1995) have also been explored. It has been found that Polanyi’s theory essentially notes that in order to transfer tacit knowledge, an individual needs to be completely aware that they possess it and also need to understand what it is that they possess. This can be difficult due to the fact that because it is such a personal piece of knowledge, individuals may not realise that they actually possess it. While Nonaka’s theory depicts the fact that tacit knowledge is something which should be harnessed in order to achieve organisational success - this has been explained through the spiral of knowledge.

Finally in this literature review the barriers to tacit knowledge transfer have been presented. This is of great interest as there is such little literature and previous research on the notion. As previously mentioned, previous research has depicted that tacit knowledge is something which is extremely important for distinguishing an organisation, it is surprising that not more research has been undertaken into identifying the barriers surrounding it in order to prevent them. The main barriers are presented by Cumberland & Githens (2012) and also Haldin-Herrgard (2000) and they include; trust, maturation, communication, competition, culture, perception, language, time, value and distance.

The next chapter will present the methodology to be utilised in order to gather primary research on the areas discussed in this literature review.

3 Methodology

The purpose of this section is to highlight the primary research undertaken by the researcher, as well as the reason for the chosen method of research. Firstly the research question will be presented along with the different sub objectives associated with the area of interest in order to gain a view of the overall aim of this research. Secondly, there shall be an analysis of the different methods of research which could be utilised in order to assess both their benefits and limitations which shall be conducive to choosing the most efficient and valuable method. Next a detailed description of the chosen research method will be provided – this shall set out in detail the way in which the research has been undertaken. Following this, the limitations surrounding the chosen method of this research will be recognised. Finally, there shall be a conclusion and summary of the main points collected throughout this section of the research paper.

3.1 Research Question

The main topic of interest within this research is the area of knowledge transfer – particularly that of tacit knowledge. This is due to the area of tacit knowledge being of such a complex nature, yet of such importance, as found through the review of relevant literature from the likes of Becerra et al (2008), Lee & Vakoch (1996) and Larkin & Burgess (2013).

The ultimate research question proposed is; do barriers to tacit knowledge transfer exist within organisations? The aim of this question is to ascertain whether the barriers highlighted by Cumberland & Githens (2012), which are; trust, maturation, communication, competition and culture, as well as those highlighted by Haldin-Herrgard (2000), which are; perception, language, time, value and distance, exist amongst individuals within an organisation – and are they aware of them.

In order to ascertain this and understand the topic of knowledge transfer itself, the researcher subsequently endeavours to explore a number of sub objectives which have surfaced throughout the literature review:

- to understand the importance of knowledge transfer within the organisation
- to investigate whether individuals realise the relevance of knowledge transfer
- to examine the differences between tacit and explicit knowledge
- to understand if changing tacit knowledge into explicit knowledge is a benefit to an organisation

3.2 Appropriate Research Methods

3.2.1 Research Philosophy

In order to select the appropriate research method, first the different research philosophies will be examined and analysed using Saunders et al's (2012) model. According to Saunders et al (2012), research philosophy is what encompasses the researcher's view of the world, which is used to assess the nature of the presented research and it inevitably predicts the way in which the researcher will understand the research question and also the associated research design. Miller & Brewer (2003) provide that by understanding the research philosophy, a researcher is therefore enabled to have a concrete piece of research by assisting in determining the overall research design and strategy.

Saunders et al (2012) explain how the assumptions which the researcher has of the way the world works will allow the researcher to underpin the research methods which will be most beneficial, while Seale (1999) explains that in having a research philosophy, the researcher can draw on it to develop the methods to be used with an awareness of what is most advantageous to their study. In some way, the research philosophy distinguishes between different practical aspects and also the different ways that people think – for example some people feel as though research should be based on facts and more numerical, whereas other researchers may feel as though their research must be conducted using methods that concern feelings and attitudes of people towards a specific topic (Saunders, et al., 2012). Essentially, it is not purely about what philosophical choices are made but it is to maintain that they are the correct choice for the topic that is being investigated (Saunders, et al., 2012). Newby (2010) adds to this in describing how the research philosophy can shape what is important for the underlying research and to also allow for the analysis and understanding of the data that will be collected.

It is important to note that, according to Saunders et al (2012), a researcher must not simply think that one method is preferential over another – it must be the method which is the most suitable to answering the overall research question and sub objectives. Wilson (2010) concurs with this notion in saying that it is important to place emphasis on which method can provide the reasoning as to how the researcher is to approach the research. In using the research model provided by Saunders et al (2012) it can be accepted however that no research question can be answered

thoroughly or absolutely using one philosophical method – in order to thoroughly understand a topic, it needs to be looked at from a number of approaches in order to investigate the topic in a well rounded and more conclusive manner.

The most important elements of research philosophy, according to Saunders et al (2012) and Miller & Brewer (2003) are ontology and epistemology; these both include different aspects that will have an impact on the ultimate decision of which research method to utilise.

Ontology refers to ‘the nature of reality’, whereas epistemology refers to ‘acceptable knowledge in a field of study’ (Saunders, et al., 2012). Klenke (2008) explains how adopting an ontology philosophy entails that a researcher has a philosophy that no objective reality exists, rather that there are multiply realities which exist within the researchers own contextual interpretation. While adopting an epistemology philosophy entails that the researcher is interested in the origin, nature and limits of knowledge, rather than with ontology where the researcher is interested in the nature of reality (Klenke, 2008).

Associated with ontology and epistemology are positivism and interpretivism. Positivism is a philosophy which is associated with epistemology, where the research surrounds collecting data which concentrates on description and rationalization which explains clearly stated theories and hypotheses (Carson, Gilmore, Perry, 2001). In using a positivist approach, the researcher remains detached in order to be ‘emotionally neutral’ and make the distinction between reason, feeling and personal experience to enable a consistent and logical approach to their research (Carson, et al., 2001).

In contrast to this, is the interpretivism approach, which is associated with the ontology philosophy. Interpretivism allows the researcher to understand what happening in the context of the phenomena and topic that is being researched (Carson, et al., 2001). Interpretivism uses a personal process to understand reality as opposed to positivism where data is analysed based on statistics (Carson, et al., 2001).

Due to the nature of this research, the researcher has concluded in adopting an ontology philosophy with a focus on interpretivism. This is due to three main reasons. Firstly, the researcher seeks to explore the actual reality of the transfer of knowledge within organisation, which is associated with ontology, rather than endeavouring to find the origins of the topic which would be associated with epistemology. Secondly, due to knowledge transfer being such a personal process as it is done between individuals, the researcher deems that using an interpretivism approach is most appropriate to gather the feelings and emerging themes of the area of interest. In using this approach, the researcher will gather an understanding of the actual reality that exists which has been mentioned previously. Thirdly the researcher has adopted this approach due to the notion of statistical analysis, which is used in the positivist approach, not being suitable to this area of research, as this research is looking for meanings and understandings, which is associated with the interpretivism approach.

3.2.2 Research Approach

Following from this, since the research ontology philosophy of interpretivism has been identified, it is important to understand the research approach which is to be adopted. The potential methods which can be utilised in this research include deduction and induction.

Deduction revolves around aspects of scientific research and the development of a theory where absolute values and data present are used to form a research strategy which will test the hypotheses which is the basis of the investigation (Saunders, et al., 2012). Wilson (2010) describes deduction simply, explaining that in using a deductive approach; it revolves around beginning with and applying a well known theory, and designing a research strategy to test this theory. By using this approach, it allows the researcher to draw logically valid conclusions to the research conducted (Feeney & Heit, 2007).

An inductive approach allows the researcher to examine the way in which humans see the world and develop theory as a result of data analysis (Saunders, et al., 2012). Feeney & Heit (2007) provided that by using an inductive approach, a researcher can explore cognitive activity which corresponds to everyday actions. Blaikie (2009)

explains how using an inductive approach allows a researcher to look for patterns in data in order to gather generalizations which are considered to be theory.

For the purpose of this study, an inductive approach will be adopted so that the researcher can gather patterns from the data collected in order to answer the research question and sub objectives. This will allow the researcher to analyse the data efficiently and gain a beneficial insight into the topic of knowledge transfer, establish a clear link between the research objectives and the data which will be collected, and also to explore the themes which emerge in relation to it.

3.2.4 Quantitative Research

Malhotra (2010) defines quantitative research as ‘a research methodology that seeks to quantify data and, typically, applies some form of statistical analysis’. The use of this method, as suggested by Creswell (2009) provides for validity and reliability from tightly controlled statistical analysis which leads to relevant and logical interpretation of data. Amaratunga, Baldry, Sarshar & Newton (2002) refer to this logical interpretation as resounding from tradition which places a considerable amount of trust and reliance on numbers which represent opinions or concepts. Using quantitative methods may allow a researcher to gather large amounts of statistics and use these to compare and contrast answers using reliable numerical methods however this method lacks in the area of exploring a topic in depth with individuals. Previous research on the topic of knowledge transfer tends to steer away from this method of research, in favour of qualitative research, however it may be interesting to see a contrasting method used for the purpose of gathering a different, statistical perspective on the area.

3.2.5 Qualitative Research

Malhotra & Birks (2007) define qualitative research as ‘unstructured primarily exploratory design based on small samples intended to provide insight and understanding’. Domegan and Fleming (2003) eludes that through the use of qualitative research, a researcher can thoroughly examine if patterns, themes and relationships between elements exist in the data collected. This is similar to the explanation of qualitative research provided by Amaratunga, et al (2002), who depict that qualitative research involves focusing on words and conversations in an attempt to understand and explore people in natural situations. Amaratunga, et al (2002) explain how qualitative research is undertaken through intense contact in the field in

situations that reflect everyday life of individuals, a notion which would be beneficial to this research as it is focused on the actual goings on within organisations. A major benefit of qualitative research is that it focuses on gathering information in a naturally occurring setting which provides a thorough insight into the topic with strong potential for revealing the prevalent and most important themes – this type of data which is encapsulated in a real life context provides a strong truthfulness, vividness and reality to the research (Amaratunga, et al., 2002).

3.3 Chosen Method of Research

For the purpose of this research the researcher has chosen to use the qualitative research approach. This is due to the researcher endeavouring to explore the area of knowledge transfer using an inductive approach so as to further understand and identify the themes associated to the research question and sub objectives in a real life context amongst individuals within an organisation, as previously discussed. Therefore a qualitative is deemed most appropriate to do this efficiently as it focuses on gathering information in a natural setting, which provides for revealing the prevalent themes and answering the research questions as well as the sub objectives.

3.4 Data Collection Method

In order to gain a thorough understanding and to have insight into the topic, the method of interviews has been adopted. According to Collis & Hussey, (2009), interviews are used in order to explore data on understands, opinions, and attitudes that people have in common; this is subsequently related to the interpretive philosophy. One benefit of using interviews the data collection method in research is provided by Warren (2004), who explains that the main benefit is that they can provide an invaluable insight into the way in which people conduct their daily lives and construct their social worlds, this is of great benefit to this particular research as it is aimed at understand the topic in that type of setting. Miller (2003) adds to this in depicting that through the use of interviews a data collection method can aid in providing a framework which can allow participants to express their thoughts and feelings in order to allow the researcher to yield accurate and valuable data.

The reason that the semi structured interview method was chosen for this research was in order to find out specifically what different participants feel about the topic, and by using a semi structured interview, major questions could be asked yet there is

still room for flexibility and for the interviewer to probe for more information (Miller, 2003). The questions for the interview conducted can be found in the appendix of this research. Subsequently, full transcripts are available upon request.

The researcher conducted a pilot interview prior to conducting the interviews. Performing a pilot interview allows for the researcher to gather feedback and understand whether the questions will be beneficial in order to get the required information needed to answer the research question and sub objectives (Taylor, Sinha & Ghoshal, 2006). Through this, the researcher found that the language used was not conducive to gathering the information needed to answer the research question. In this case, the questions were reorganised and restructured so as to guide the participants through the process and avoid confusion or misinterpretation.

3.5 Sample Selection

A non probability sample selection is present in this research as it requires an in-depth study on the topic of knowledge transfer. Saunders et al (2012) suggest that a minimum sample size between five and twenty five participants should be used for the case of semi structure interviews. Within this particular research, the sample sized used amounted to eleven participants taking part in a semi structured interview.

The respondents were from different organisations which are operating in different industries both within the services industry and retail industry with the interest of gaining a well rounded and well informed observation of the area of interest.

The respondents were chosen as the researcher could easily access the different organisations and gather information to gain insight into the topic. The topic chosen is not based on one single industry; therefore the researcher found it appropriate for this research to gain insight from different industries, again the aim of this was to have a well informed view and to explore the thoughts and feelings of individuals in different organisations, within different sectors.

3.6 Data Analysis Method

An inductive approach is used to analyse the data collected through the semi structured interview. It is explained by Thorpe & Holt (2008), that through using an inductive approach, the researcher can develop descriptions of activities, attitudes

and feelings in a social context. Saunders et al (2012) explains how using this approach will allow for the exploratory purpose of the approach to be utilised.

It is important to note that there is no standardised approach to analysing qualitative data (Saunders, et al., 2012). The researcher first categorises the data collected using different codes which are guided by the research question and sub objectives which are previously outlined, Auerbach & Silverstein (2003) notes that using the coding method a researcher will be able to make the large amount of data generated through the interviews manageable. For the purpose of this research the categories are predominantly concept driven through consulting the literature which is depicted in chapter two of this research, while some of the categories may be data-driven and based upon terms used by the participants of the interview. Dividing the data collected into codes allows the researcher to find emerging themes, patterns and relationships and analyse them effectively (Saldana, 2012). Quotations from the data are used to support the analysis of the themes, patterns and relationship and also in order to allow the researcher to provide a clear report of the results. Saini & Shlonsky (2012) explains that in using quotes the researcher can further emphasise different pieces of information in the findings, and also to provide consistency.

3.7 Limitations

While this research will provide a great insight into the topic of knowledge transfer, there are also limitations which are present. The major limitations of this research are time and sample size.

Time as a limitation refers to the time limit on the research. Having a time limit on the research has meant that the researcher may not have been able to gather as much data which would be preferential for thoroughly delving into the topic of knowledge transfer. As the topic is of such a complex nature it would have been beneficial to have more time to interview a larger number of people so as to gather more opinions, attitudes and feelings on the topic.

Subsequently, the sample size used to collect data is another limitation of this research, in order to get a full understanding of the research question and gain full validity of the research, it would be necessary to collect data from a substantially larger sample size. However due to time constraints and possible access constraints if pursuing a larger sample size this is impossible. Even with a limited sample size, a

greater understanding of the topic of research and sub objectives is still plausible as with the sample size used, an insight is gained into the feelings and attitudes with reference to the questions asked throughout the interview.

3.8 Ethics

Hair, et al (2011) refers to ethics as ‘the application of moral principles and ethical standards to human actions in the exchange process’.

In order to ensure that the primary research being conducted remained ethical, the researcher took into account three areas in relation to ethics identified by Maylor & Blackmon (2005), the three areas include; maintaining privacy, representation of data and taking responsibility behind the results.

With regards to maintaining privacy, the researcher has withheld the names of the participants and also the organisations which they work for so that they remain anonymous and privacy is guaranteed. This also allowed the participants to speak more freely and truthfully due to no pressure with regards to their identity being used, which also added to the validity of the data collected. The researcher also discussed with the participants the purpose of the study and what the data would be used for, this allowed them to be fully aware from the onset as to why the researcher was conducting the interview and how the data which was being collected would be used.

The researcher will thoroughly analyse the data collected so that the representation of the data can be ensured to be honest and accurate. This will eliminate the chance of unethical findings and allow for a clear and concise provision of primary research which will aid in understanding the topic that is being investigated.

In relation to taking responsibility behind the results found the author shall do this by reporting the truth with regards to the data collected, particularly if the case is to arise that this data is found to have negative aspects towards any issue – essentially the meaning by this is that no information will be withheld.

4 Findings

This chapter follows on from the previous chapter which identified the methods used to conduct the primary research and allows for a presentation of the data collected. This will be presented through the use of the objectives and research question to facilitate the reader. The headings used will be: do barriers exist to tacit knowledge transfer, the importance of knowledge transfer within the organisation, do individuals realise the relevance of knowledge transfer, the differences between tacit and explicit knowledge, is changing tacit knowledge into explicit knowledge a benefit to an organisation.

4.1 Do Barriers Exist to Tacit Knowledge Transfer?

To begin answering the question as to whether barriers to tacit knowledge transfer exist, the researcher asked if the participants find transferring tacit knowledge an easy task, to which eight of the participants answered yes they do find it easy, while three find that they have difficulties in transferring the knowledge. Of the participants who find it easy to transfer knowledge, reasons for this were explained to include factors such as being a good communicator (Interviewees C, D, G and K), having patience (Interviewees A, C and K), having confidence (Interviewees H and I) and having the time to transfer the knowledge (Interviewees I and J) . For the participants who find that transferring tacit knowledge is difficult, the reasons included having a lack of patience (Interviewee B), working in a busy environment (Interviewees B and E), feeling as though the information is too complex (Interviewee F) and also due to language barriers causing miscommunication (Interviewee E).

To delve further under the surface and determine if barriers to tacit knowledge transfer truly exist amongst the participants, the researcher asked the participants whether they have any difficulties when transferring tacit knowledge. The result of this was that only two out of the eleven participants stated that they do not find any difficulties when transferring tacit knowledge.

Of the two participants who originally commented that they do not find any difficulties, they stated that they are good communicators (Interviewees D and K), Interviewee D for example explains that they are the ‘type of person who will keep asking questions’ to ensure that the person whom they are transferring the

knowledge to full obtains what they are trying to transfer. Upon probing into this and thinking about it for a while, Interviewee D actually realised that barriers could potentially exist when the knowledge is being transferred to them, depending on the what it is, language has a lot to do with this and if they don't understand the topic they 'just won't understand the language they use'. The same reaction was found from the Interviewee K, who originally stated that they did not have difficulties transferring tacit knowledge. Similarly to Interviewee D, they depicted that because they can communicate well so they can 'easily pass on what they need to the other person'. Interviewee K also commented on how they 'have mountains of experience' so know exactly how they can pass on the knowledge most effectively. Again, like with Interviewee D, upon discussing it further they discovered that issues may arise if there is any 'misperception on the other person's account', or if they are extremely busy and 'don't get a chance to follow up' and make sure that the knowledge has been transferred correctly.

Of the nine participants whom originally stated they found difficulties with transferring the knowledge, and therefore essentially barriers to tacit knowledge, they listed time, language, perception and trust as the main factors to their difficulties.

Interviewee B found that 'timing is a big thing', as this participant works in an extremely busy environment, if someone perceives knowledge incorrectly or simple doesn't take on board the knowledge being transferred correctly, then having the time to keep transferring the knowledge 'can become an issue'. Interviewee C also finds that time is an issue due to the busy environment which they work in. Interviewee C explains how it can be difficult to find the time to sit down with someone as to ensure that they are receiving the knowledge correctly, this participant acknowledges that it depends on the circumstances and how if 'you have all the time you need', then transferring knowledge is less difficult. Interviewee J also supports that time is a factor in depicting how that if they do not have the time to transfer knowledge to someone else, it's easier to do it themselves 'so everyone can move on and we don't get held back'. Interviewee J also adds to this in saying that if an individual has the time available and they are not stressed due to the business of environment then they are 'more relaxed and then it's easier to transfer the knowledge', this aids in preventing people getting frustrated with each other,

whether it's the person wanting knowledge to be transferred to them or the other wanting to be moving on and doing something else.

Five of the participants found language to be a barrier to tacit knowledge transfer. Interviewee G explained how language is a difficulty to them in their current place of work whereas they would not have seen it to be a difficulty in their previous place of work. This is due to the participant being one of two experts on what their role requires in their organisation. The participant depicts how previously everyone would have worked on the same thing, spoke the same language and would have the same goals, whereas in their current organisation, people outside of their team would 'just look at me with a blank face' if they tried to transfer knowledge. Interviewee H gives a different perspective in the manner of depicting how language is a difficulty as all of the people they work with are in the same field. This participant explains how even though they work in the same area, they 'just don't get it sometimes', so the participant is aware that they must change the phrases used or the technique of transferring the knowledge from just giving instruction to 'sitting down and explaining thoroughly'. Interviewee K also found that language is a barrier in relation to interacting with and transferring knowledge to different people in the organisation. Interviewee K explains how if they need to transfer knowledge onto an individual in a different department it can be 'extremely difficult' due to them 'not having a clue' what they would be talking about, much like the difficulty Interviewee G also identified. Interviewee K explained how they make a conscious effort to clarify information that may be 'alien' to some people in different departments so as to avoid a difficulty in transferring the knowledge. Interviewee E on the other hand refers to language in a different sense, and talks about working with people of different nationalities rather than people with different technical expertise. Interviewee E explains that it can sometimes be difficult due to different languages so it they find it a benefit to avoid 'desperate times' when language is a major barrier to have someone who is able to translate so that the knowledge can be transferred, otherwise they may say they understand what is being said but in reality they have not.

How people perceive the knowledge which is being transferred to them is a theme which has been identified by five of the participants. Interviewee A explained how the way in which another takes on information which they are transferring can be a

major barrier to the efficient transfer of the knowledge. This participants explains it to be a barrier because ‘everyone communicates differently and perceives things differently’, adding to the explanation it is explained that some people can take certain types of information very well and easily whereas others may need to have a more thorough transferring of knowledge so that they perceive the knowledge correctly. Interviewee B also explains how if they perceive the information incorrectly or a different way to which it is intended, that it can become an issue as there isn’t enough time to keep transferring the knowledge.

The final barrier which became apparent through the interview process is that of trust. Four of the participants identified trust as a barrier to tacit knowledge transfer. Interviewee B explains how trust is a barrier in that if they can’t trust someone when transferring knowledge then they are less likely to be as willing to transfer the knowledge in the first place. Interviewee B goes on to explain how if they don’t trust someone, as well as it inhibiting the transfer of knowledge onto the individual, it also makes their job harder and ‘effects everyone in the office essentially as we all work together as a team’. This is supported by Interviewee F who describes how if there is a lack of trust between the person who is transferring the knowledge and the person who the knowledge is being transferred to, there can be difficulties due to the complexity and sensitivity of the industry that they work in. Interviewee F indicates that there must be trust between the two parties for them to perform their job so that they can ‘transfer knowledge freely’ between each other so as to do their job correctly as it in ‘the interest of the clients which we are helping’.

The findings of the barriers to tacit knowledge transfer, from data collected from each of the participants, can be seen represented on the chart below.

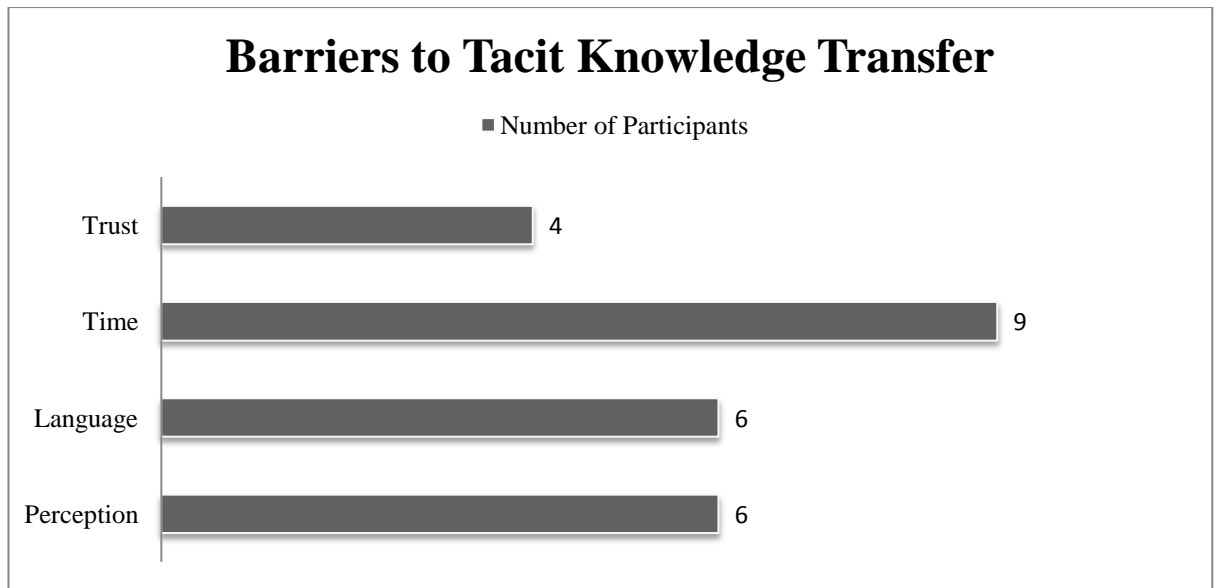


Figure 3 Barriers to Tacit Knowledge Transfer

4.2 Importance and Relevance of Knowledge Transfer within the Organisation

Eleven out of the eleven participants confirm that knowledge transfer is important within the organisation. Interviewee J explained how knowledge is of important so that everything can be organisation more efficiently and things can run smoothly, due to it allowing for ‘open communication’, particularly in the organisation when ‘knowledge is encouraged’ throughout. While Interviewee A looks at knowledge transfer being important in relation to the organisation being able to grow, in saying that having a culture where knowledge sharing is encouraged, people can exchange ideas and ‘companies only grow with new ideas’.

Throughout the interview process with the participants, the importance of knowledge transfer within the organisation is also reverted to with regards to other different aspects than previously mention. Interviewee I explains how transferring knowledge to other individuals is important so that they can do their own job in the first place, they make reference to how without knowledge transfer ‘how are people supposed to learn new things?’, which ultimately means the organisation would come to a standstill if people aren’t transferring knowledge. Interviewee G also makes reference to problems surfacing in the future if the organisation does not have any knowledge being transferred, which as time goes on there will be more of a delay in the day to day running of the business and ‘more time will be wasted’. Interviewee K depicts how transferring knowledge can have an effect on how people feel within the

organisation and how comfortable they feel in their surroundings – thus having an effect on their work and overall ‘motivation to improve and to do their job the best they can’ within the organisation.

There are no negative associations made by any of the participants in relation to the importance of knowledge transfer to the organisation. Any negativity is only portrayed in relation to the barriers which exist in relation to tacit knowledge transfer which have previously been discussed. Even with these being negative, they are reflected upon as something which people wish to overcome rather than them being a hindrance to the organisation as whole – with the knowledge transfer remaining highly important.

4.3 The Differences between Tacit and Explicit Knowledge

Eleven out of the eleven participants found it difficult to explain what they see tacit knowledge to be, while eleven out of the eleven participants, in contrast to this, found it easier to explain what they feel explicit knowledge is.

With regards to tacit knowledge, one of the factors associated with it that emerged included it being extremely complex and difficult to explain, as identified by three of the participants. Interviewee C explained how with tacit knowledge, it is substantially difficult to describe; they refer to it as being ‘quite personal’ and something which ‘you really learn as you go along’. This is supported by Interviewee B who explains how tacit knowledge is complex due to the fact that you can’t simple learn it from a manual, this participant learned it through experience and as they’ve ‘grown along with the business’.

Interviewee F however also interprets tacit knowledge as being knowledge which must be learned through experience when you are put into different situations that arise while working, you ‘take something from each experience which broadens your knowledge in a sense’, which is similar to Interviewee B who had learned their tacit knowledge also through experience. While Interviewee G describes it as being ‘inherited’ and being built up through their career. In this sense, even though the participants are not referring to it as being entirely complex, there are still notions of it being slightly complex which can be seen through their replies. Interviewee D said that while tacit knowledge transfer is easy to describe when referring to describing

why it's important, but the when passing it on to someone else the task can become quite difficult and again it is something which can be learned through experience.

With reference to explicit knowledge, eleven out of eleven participants accept that it is information which they have formally learned, essentially knowledge which is written down. This is the main difference identified between the two types of knowledge.

Interviewee A describes how they received explicit knowledge through their formal education and through passing tests while being trained into their current role – all of which the information was written down. Similar to this, Interviewee C explains how they learned the use of computers, which is essential to their job, through both their formal education in university, and this was added to once they began their current role. This participant also explained how the knowledge could easily be written down and how they had already begun to write a manual to have the information formalised so as to aid other people doing the same work within the organisation.

4.4 Is Changing Tacit Knowledge into Explicit Knowledge a Benefit to an Organisation?

It is apparent that eleven out of the eleven participants are of the view that changing tacit knowledge into explicit knowledge is a benefit to the organisation. This is due to the tacit knowledge being imperative for them to do their job, as expressed by all of the participants. Interviewee K explains this eloquently in saying that 'the knowledge that is difficult to explain is the glue which brings all of the theory together'. As well as this, Interviewee G depicts that by transforming tacit knowledge into explicit knowledge; it allows the individuals to 'keep evolving and learning new things and come up with new ideas', again aiding the overall efficiency of the business.

It has also emerged that six out of the eleven participants feel as though while it would be of a benefit to the organisation to change tacit knowledge into explicit knowledge, they do not necessarily feel as though there is a need for it in their current position. Interviewee C explains this in saying that it more beneficial to keep showing people what to do rather than to write it down, the people who they are transferring knowledge to can ask questions if they need to be sure of something, but the need to write it down and formalise it isn't necessarily there. Interviewee I is of

the feeling that they do not need to formalise any information at the moment due to the fact that there is no need for her to pass it on as they feel as though the people they work with have similar tacit knowledge, the information which they transfer on a day to day basis would be explicit knowledge, ‘unless someone new was to join our team there’s no need’.

4.5 Conclusion

In conclusion, the researcher has found that barriers to tacit knowledge exist among individuals within different organisations. These have been identified as time, language, perception and trust. Subsequently to this, the researcher has found that individuals are innately aware of both the relevance and importance of transferring knowledge within an organisation. The differences between tacit knowledge and explicit knowledge have also been explored. Firstly it has been identified that tacit knowledge is learnt through experience and over time, it is something which is extremely complex and difficult to describe. Secondly it has been identified that explicit knowledge is the one which people learn from what can be written down and what they have learned through formal education and through operating procedures manuals. Finally it has been noted that while the participants feel as though that changing tacit knowledge to explicit knowledge can be of benefit to an organisation, not all of them feel as though it is needed at that moment in time in their position – that they can continue to show people what to do over time.

The following chapter will discuss these findings in relation to the literature which was explored in the previous literature review chapter.

5 Discussion

This chapter follows on the previous chapter which presented the findings from the data collected. A discussion is presented under headings reflecting the overall research question and sub objectives; in order to do this, the data collected will be linked back to the literature which was highlighted in the first second chapter of this research.

The accumulation and organisation of the data will allow the researcher to fully understand the topic which is being researched and apply it to previous literature. It will allow the researcher to assimilate whether the data collected is either similar or in contrast to previous literature. It will provide for the limitations of this research and therefore also allow for future recommendations.

5.1 Barriers to Tacit Knowledge Transfer

Through the interview process, the researcher has found that a number of barriers exist with relation to tacit knowledge transfer. These include; time, perception, language and trust. These are barriers which were also identified by previous research in the literature review. It was highlighted by Cumberland & Githens (2012) that trust is a barrier to tacit knowledge transfer, while Haldin-Herrgard (2000) highlighted that perception, language, and time are barriers to tacit knowledge transfer. These authors however also highlighted that additional barriers to tacit knowledge transfer exist. Cumberland & Githens (2012) denoted that the barriers also include maturation, communication, competition and culture, while Haldin-Herrgard (2000) depicted that value and distance are also barriers. These factors were not found to be direct barriers among the participants in this research but will still be analysed in relation to the interviews which were undertaken later on in this chapter.

The main barrier which was identified by the participants was in relation to time. Time appears to be crucial to the successful transfer of tacit knowledge, and throughout the interviews this was deemed to be something that was lacking which made it much more difficult to transfer the knowledge. This, as previously stated, is similar to research by Haldin-Herrgard (2000) who concurred in saying that time is a barrier to tacit knowledge transfer due to speed being of utmost importance in modern business. The participants agreed with this notion in saying that if there was

sufficient time available to go through different scenarios before they arise, or even as they arise, that they would be better equipped to transfer the tacit knowledge, however for many this is not possible due to the busy environment which they work in.

Perception is another definite difficulty to have emerged from the data collected. This is with regards to the perception which the person tacit knowledge is being transferred to has of the knowledge they receive and how they interpret it themselves. If the individual whom transfers the knowledge has one idea of what they are trying to communicate, the person whom they are transferring the knowledge to may interpret or perceive it differently. The main difficulty with this is this is that the knowledge they acquire is incorrect and does not aid them in anyway, or may in fact make the person who has acquired it less efficient in their work. Haldin-Herrgard (2000) identified perception as a barrier to tacit knowledge transfer but rather than referring to is a barrier with regards to how the other individual receives the knowledge, Haldin-Herrgard (2000) explains it to be a barrier in relation to the person who owns the knowledge in the first instance. In this sense, the barrier is with regards to tacit knowledge being intrinsic and something that an individual may not even be aware of themselves, which causes difficulties when it comes to transferring the knowledge.

Perception can also be themed with the notion of communication being a barrier, which was identified by Cumberland & Githens (2012). When referring to communication as a barrier; the Cumberland & Githens (2012) placed emphasis on the notion of organisations failing to communicate and therefore failing to improve the likes of potential sales growth and motivation. Participants in the interview which was conducted did not refer to communication as a barrier to tacit knowledge directly, however, participants confirmed that if they were unable to communicate effectively, they would consider it to be a barrier to transferring tacit knowledge – this was spoken about with relation to time as barrier rather than communication itself.

Language is another theme which emerged throughout the interviews as a barrier to transferring tacit knowledge. For the participants, this was in relation to the different disciplines or environments in which the knowledge is being transferred. The more

technical the knowledge, or the more specific the language of the knowledge which is to be transferred, the more difficult it can be to transfer, as previously discussed in the findings chapter. This is due to perhaps the person whom the knowledge is being transferred not understanding it correctly, or not understanding it at all, and therefore having difficulties acquiring the knowledge effectively or simply not being able to have knowledge transferred to them at all. Haldin-Herrgard (2000) refers to language as a barrier also in relation to a diverse use of terminology and suggests that a common language is developed so that knowledge can be shared on all platforms.

A final barrier which was noticeable throughout the data collected in relation to the transfer of tacit knowledge is that of trust. Participants made reference to trust being essential for the transfer of tacit knowledge, as previously discussed in detail in the findings section. It is empirical for the person transferring the knowledge to trust that the person on the receiving end of the knowledge can be trusted to use the knowledge correctly. Cumberland & Githens (2012) refer to trust as a barrier to tacit knowledge in the sense that both of the individuals who are either transferring knowledge or receiving knowledge need to fully trust each other so that they may be fully engaged and transfer knowledge effectively. This is similar to what was found during the interviews in that participants were reluctant to share information if they did not trust another individual. It also reverts back to time in that it takes time for individuals to trust each other.

5.2 The Importance and Relevance of Knowledge Transfer

It has been examined and explored as to whether the interview participants are aware of the relevance and importance of knowledge transfer itself.

As discussed within the literature review, previous research show that knowledge transfer is of paramount importance to an organisation. Alavi & Leidner (2001) depicted how with knowledge, it allows an organisation to share information, learning and experience to aid future accomplishments and also aids in an organisation gaining a unique competitive advantage. Switzer (2008) added to the understanding of the relevance and importance of knowledge transfer in saying that 'knowledge capital' is an organisations most valuable asset. Additionally, Rowe & Widener (2011), Chen (2004) and Rhodes et al. (2008) confirm the importance and relevance of tacit knowledge for innovation and efficiency.

With regards to the primary research undertaken, when the participants were asked their opinion on whether knowledge transfer is important to the organisation – the overall answer was a resounding positive one and a definitive ‘yes’, as previously stated in the findings chapter. However, while this confirms that employees are aware of the importance of knowledge transfer within an organisation, this did not give much insight into the reasons behind as to why the participants consider it to be of such importance nor did it provide the relevance which it has to the organisation, however, the researcher felt as though it was a good starting point to delve into the reasons behind the participant’s answers.

Through probing questions, the researcher found that the feelings towards knowledge transfer with regards to its importance in an organisation were that it was imperative to the organisation surviving, just as depicted by previous research. The researcher found that participants felt as though the organisation could not run smoothly on a daily basis without efficient knowledge transfer, let alone reach overall organisational goals, nor remain competitive against potential threats of succession from other rival organisations. A description of an organisation which did not have effective or efficient knowledge transfer throughout was given by one of the participants (Interviewee D) as the organisation being ‘just a show, it’d be chaos and nothing would be done efficiently’. This shows that the participants are in agreement with the previous research, and that the importance of knowledge transfer is something that is essentially obvious to the individuals whom were interviewed.

5.3 The Differences between Sharing Tacit and Explicit Knowledge

In order to investigate the barriers to tacit knowledge transfer, it was important to distinguish between tacit and explicit knowledge so that the researcher could identify the barriers effectively. In doing this, the participants were able to recognize a number of different between the two categories.

Upon commencing the discussion, participants found it difficult to explain the tacit knowledge which they had acquired or been trained in. Once they began to discuss it and speak about the knowledge, they gained a solid grasp on what this knowledge was, they were able to identify it and explain it effectively to the researcher. They found that the tacit knowledge which they possessed was essentially the knowledge which was intangible and the knowledge in which they did not simply learn it

through reading an instruction manual given to them when they began their job, nor was it the knowledge which they learned through their education through text books or through their lecturers upon slideshows or through written assessments or exams. The participants identified tacit knowledge as the knowledge which they acquired and retained over time and through experience which was, as previously mentioned, intangible. They learned this knowledge mainly as a result of going through different experiences and being guided through these experiences by other work colleagues and then learning from them and retaining and becoming more confident with the knowledge which they used. This depiction of tacit knowledge is quite similar to the previous research undertaken as discussed within the literature review. It matches the definition provided by Nonaka & Takeuchi (1995) as tacit knowledge being *'personal, context-specific, and therefore hard to formalize and communicate'*, as well as Nonaka & Takeuchi describing tacit knowledge as inherent and cognitive. In relation to the knowledge being inherent, the participants have described this with it being learned from experience, and in relation to it being cognitive, the participants refer to it as being something which they cannot explain but just know they have it – one participant (Interviewee G) refers to it as being 'in my genes'.

One participant (Interviewee B) referred to having a substantial mentor throughout their career whom they learned much of their tacit knowledge from – again this was through experience and over time so that they 'grew with the business', it was not something which they could easily learn through a set of instructions, as Chen & Mohammed (2010). The participants also explained that this tacit knowledge which they possessed is crucial to their role in their organisation. One in particular explained how while they can still do their job without having beginning to acquire this knowledge from the offset or without having acquired it all, they would not necessarily perform to the best of their ability, nor in a truly efficient or effective manner (Interviewee F), this reverts back to previous research by Foos et al (2006) who explained how early involvement allows for tacit knowledge to be shared efficiently and allows for a culture of knowledge transfer to be adopted in the early stages of a career which aids the success of the organisation in the long run.

The participants found it significantly easier to explain the explicit knowledge which they possess and which is required for their role. They mostly explained this as the knowledge which would have been transferred to them through the use of either an

instruction manual or a procedures guide. This concedes with research by Herschel et al (2001), Croakes (2006) and Huang & Shih (2011) who note that explicit knowledge is knowledge that can be transferred through code, and for the participants this is through the likes of instruction manuals. It is interesting to note, however, that much of this explicit knowledge was shown to the participants when they were being trained in their role; however they pointed out and placed emphasis on the fact that written instructions were available to use as a reference if anything was forgotten after being shown, unlike the tacit knowledge which they had acquired that could not simply be written down or described easily.

Through investigating the differences between tacit and explicit knowledge it is clear to the researcher that in essence tacit knowledge is the knowledge which is intangible and cannot be transferred through simple instructions. This is in contrast to explicit knowledge, while it can still be shown and learned through experience, it is knowledge which can be written down and formulated into step by step instructions, which is significantly different to the methods and lack of formalities used with regards to the transfer tacit knowledge. This information concurs with previous research as discussed in the literature review, the only difference found through the primary research undertaken is that for some of the participants, they were shown some of the explicit knowledge which they had acquired – but this knowledge was still available in a coded format.

5.4 Changing Tacit Knowledge into Explicit Knowledge

Following on from understanding the relevance and importance of tacit knowledge, the researcher has explored the difference between the two categories of knowledge; tacit and explicit. The next undertaking is to discuss if it is important to the organisation to transfer tacit knowledge into explicit knowledge in relation to the participants' thoughts along with the previous literature.

When referring to the participants' thoughts, this is a difficult notion to examine due to the complexity of tacit knowledge, which has clearly been identified throughout the data collection process. Each of the participants has noted that the tacit knowledge which they possess has not been easily learned, and in addition to this, it has been learned over time through experience. However, the participants also place an emphasis on the tacit knowledge being vital for them to complete their day to day

duties in an efficient and effective manner. From this, it can therefore be assumed that it is important to transfer the tacit knowledge into explicit knowledge. This is in agreement with previous research by Foos et al (2006) who make the recommendation that tacit and explicit knowledge should not be seen as different categories of knowledge, but as one entity in order to efficiently run the organisation and provide for new ways of thinking and gaining a competitive advantage.

When asked how the participants transferred such tacit knowledge, it was noted that this was done through going through different scenarios with another colleague and offering different solutions so that, as time went on, the people that the knowledge was being transferred to would acquire the knowledge for themselves. The main factor in transferring tacit knowledge, as identified by the participants, is having enough time to do so and allowing for the transfer to be done over time. The participants acknowledged that transferring tacit knowledge is not an easy task or something which can be easily converted to explicit knowledge. While it is noted that tacit knowledge is something of great complexity, not much reference is made to the difficulties of transferring it into explicit knowledge in the previous literature.

With regards to the importance of transferring tacit knowledge into explicit knowledge, the participants did not place great emphasis on this. They recognise that it is empirical to have tacit knowledge in order to complete their duties and perform more efficiently, however no participant found that there was necessarily a need to write down or formalise the tacit knowledge which they possess. The general feeling of the participants is that tacit knowledge is something which cannot be written down and that it must be learned over time and through experience.

6 Conclusion and Recommendations

6.1 Conclusion

The data found through the use of an interview has been presented in relation to the previous literature highlighted in the literature review. It can be noted that in relation to the barriers to tacit knowledge transfer, the participants have identified a number of barriers as highlighted also by previous research by both Cumberland & Githens (2012) and Haldin-Herrgard (2002); time, perception, language and trust, and a slight mention of communication. However, the participants failed to mention the additional barriers which were identified by both Cumberland & Githens (2012) and Haldin-Herrgard (2002) of maturation, competition, culture, value and distance which could be of interest for future research which will be discussed in the next section of this chapter.

With regards to the importance and relevance of knowledge transfer, it can be seen that the participants' view is in agreement with that of the previous literature by the likes of Rowe & Widener (2011), Chen (2004) and Rhodes et al. (2008), among others as previously discussed within the literature review who are depict that knowledge transfer is exceedingly important for an organisation to essentially remain resilient and have a competitive edge. With both the participants and the previous literature are of the opinion and judgement that knowledge transfer is extremely relevant and of vital importance to the organisation, it can be denoted that this is something which may be obvious to individuals within an organisation.

The differences between sharing tacit knowledge and explicit knowledge have been explored throughout this research. The participants of the interviews have identified that tacit knowledge is knowledge which is complex and quite difficult to describe, while explicit knowledge is knowledge which can be easily written down and seen through the likes of operating procedures manuals or books. The participants of the interviewed added to the distinguishing the two categories by identifying that tacit knowledge is essentially knowledge which is intangible while explicit knowledge is knowledge which is tangible. This concurs with previous research by Jasimuddin et al (2005), Nonaka & Takeuchi (1995), and Chen & Mohamed (2010) whom explain how tacit knowledge is knowledge is difficult to demonstrate, deeply entrenched in not only experience but in norms, values and emotions and also difficult to imitate.

While Armstrong (2009), Herschel et al (2001) and Huang & Shih (2011) denote that explicit knowledge is knowledge which can be easily codified and written down, and transferred quickly and simply to others.

With regarding to changing tacit knowledge into explicit knowledge, it can be concluded that through the primary research, the participants feel as though while it could be useful, it is not necessarily crucial. It has been noted that the tacit knowledge which would need to be transferred into explicit knowledge is extremely complex itself and that in the current situation there was a majority in the feeling that it was not something which is vital for their organisation. This is in contrast to the previous literature. Previous research depicts that there is a need for organisations and individuals to transfer tacit knowledge into explicit knowledge. Stover (2004) places emphasis on transferring the two so that the owner of the knowledge would no longer need to be present in order to transfer the knowledge, as well as this there would be less chance for an organisation to lose the unique knowledge which they have required. Through the interview process however, the participants felt as though they could transfer the knowledge over time and therefore there is no need to write it down as the other individual with gather the knowledge regardless through their own experiences.

6.2 Recommendations

The first recommendation after conducting this research eludes from the time limitation of this research. It is proposed that more research is gathered in the topic of knowledge transfer – particularly that of tacit knowledge, but over a longer period of time. Information could be gathered and analysed over a long period of time based upon individuals actually carrying out the transfer of tacit knowledge. It would provide deep insight and allow for the researcher to note the barriers which present themselves as the transfer of knowledge is actually happening.

The next recommendation is with regard to sample size. It is suggested that a larger sample size is used in order to conduct the research. This would allow for even greater insight and also allow for more data to be collected in order to make more comparisons and provide greater validity of the research.

Finally, it is recommended that more research is undertaken into the topic of knowledge transfer itself. As it has been identified to be of such importance to

organisational success, it is surprising that there is not an overwhelming amount of research surrounding it. It is recommended that more research is undertaken in order to allow organisations to correct inefficiencies and discover the best ways in which to utilise their knowledge capital.

Bibliography

- Alavi, M. & Leidner, D. E., (2001). Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. *Management Information Systems Quarterly*, 25(1), pp. 107-136.
- Amaratunga, D., Baldry, D., Sarshar, M. & Newton, R., (2002). Quantitative and qualitative research in the built environment: application of "mixed" research approach. *Work Study*, 51(1), pp. 17-31.
- Armstrong, M., (2009). *Armstrong's Handbook of Human Resource Management Practice*. 11th ed. London and Philadelphia: Kogan Page.
- Auerbach, C. F. & Silverstein, L. B., (2003). *Qualitative Data: An introduction to coding and analysis*. 1st ed. s.l.:NYU Press.
- Becerra, M., Lunnan, R. & Huemer, L., (2008). Trustworthiness, Risk, and the Transfer of Tacit and Explicit Knowledge Between Alliance Partners. *Journal of Management Studies*, 45(4), pp. 691-713.
- Bhardwaj, M. & Monin, J., (2005). Tacit to explicit: an interplay shaping organization knowledge. *Journal of Knowledge Management*, 10(3), pp. 72-85.
- Blaikie, N., (2009). *Designing Social Research*. 2nd ed. s.l.:Polity.
- Blomkvist, K., (2012). Knowledge management in MNCs: the importance of subsidiary transfer performance. *Journal of Knowledge Management*, 16(6), pp. 904-918.
- Bloodgood, J. M. & Chilton, M. A., (2012). Performance implications of matching adaption and innovation cognitive style with explicit and tacit knowledge resources. *Knowledge Management Research & Practice*, 10(2), pp. 106-117.
- Borges, R., (2013). Tacit knowledge sharing between IT workers. *Management Research Review*, 36(1), pp. 89-108.
- Brohm, R., (2006). The emancipatory power of the tacit dimension. *Critical Perspectives on International Business*, 2(3), pp. 244-258.
- Carson, D., Gilmore, A., Perry, C. & Gronhaug, K., (2001). *Qualitative Marketing Research*. 1st ed. s.l.:SAGE.
- Chen, C.-J., (2004). The effects of knowledge attribute, alliance characteristics, and absorptive capacity on knowledge transfer performance. *R&D Management*, 34(3), pp. 311-321.
- Chen, L. & Mohamed, S., (2010). The strategic importance of tacit knowledge management activities in construction. *Construction Innovation*, 10(2), pp. 138-163.
- Choo, C. W., (2000). Working with knowledge: how information professionals help organisations manage what they know. *Library Management*, 21(8), pp. 395-403.

- Collis, J. & Hussey, R., (2009). *Business Research*. 3rd ed. s.l.:Palgrave Macmillan.
- Creswell, J. W., (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. 3rd ed. s.l.:SAGE Publications.
- Cumberland, D. & Githens, R., (2012). Tacit knowledge barriers in franchising: practical solutions. *Journal of Workplace Learning*, 24(1), pp. 48-58.
- de Jong, J. P. & Den Hartog, D. N., (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovative Management*, 10(1), pp. 41-64.
- Dhanaraj, C., Lyles, M. A., Steensma, H. K. & Tihanyi, L., (2004). Managing tacit and explicit knowledge transfer in IJVs: the role of relational embeddedness and the impact on performance. *Journal of International Business Studies*, 35(5), pp. 428-442.
- Domegan, C. & Fleming, D., (2007). *Marketing Research in Ireland: Theory and Practice*. 1st ed. Dublin: Gill & MacMillan.
- Feeney, A. & Heit, E., (2007). *Inductive Reasoning: Experimental, Developmental, and Computational Approaches*. 1st ed. s.l.:Cambridge University Press.
- Foos, T., Schum, G. & Rothenberg, S., (2006). Tacit knowledge transfer and the knowledge disconnect. *Journal of Knowledge Management*, 10(1), pp. 6-18.
- Gottschalk, P., (2005). *Strategic Knowledge Management Technology*. 1st ed. London: Idea Group Publishing.
- Haldin-Herrgard, T., (2000). Difficulties in diffusion of tacit knowledge in organizations. *Journal of Intellectual Capital*, 1(4), pp. 357-365.
- Herschel, R. T., Nemati, H. & Steiger, D., (2001). Tacit to explicit knowledge conversion: knowledge exchange protocols. *Journal of Knowledge Management*, 5(1), pp. 107-116.
- Hicks, R. C., Dattero, R. & Galup, S. D., (2007). A metaphor for knowledge management: explicit islands in a tacit sea. *Journal of Knowledge Management*, 11(1), pp. 5-16.
- Holste, J. S. & Fields, D., (2010). Trust and tacit knowledge sharing and use. *Journal of Knowledge Management*, 14(1), pp. 128-140.
- Huang, Y. C. & Shih, H.-C., (2011). A new mode of learning organization. *International Journal of Manpower*, 32(5), pp. 632-344.
- Hutzschenreuter, T. & Hortkotte, J., (2010). Knowledge transfer to partners: a firm level perspective. *Journal of Knowledge Management*, 14(3), pp. 428-448.
- Jasimuddin, S. M., Klein, J. H. & Connell, C., (2005). The paradox of using tacit and explicit knowledge. *Management Decision*, 43(1), pp. 102-112.

- Karim, N. S. A., Razi, M. J. M. & Mohamed, N., (2012). Measuring employee readiness for knowledge management using intention to be involved with KM SECI processes. *Business Process Management Journal*, 18(5), pp. 777-791.
- Klenke, K., (2008). *Qualitative Research in the Study of Leadership*. 1st ed. s.l.:Emerald Group Publishing.
- Larkin, R. & Burgess, J., (2013). The Paradox of Employee Retention for Knowledge Transfer. *Employment Relations Record*, 13(2), pp. 32-43.
- Lee, C. S. & Kelkar, R. S., (2013). ICT and knowledge management: perspectives from the SECI model. *The Electronic Library*, 31(2), pp. 226-243.
- Lee, Y.-s. & Vakoch, D. A., (1996). Transfer and retention of implicit and explicit learning. *British Journal of Psychology*, 87(4), pp. 637-651.
- Liyanage, C., Elhag, T., Ballal, T. & Li, Q., (2009). Knowledge communication and translation – a knowledge transfer model. *Journal of Knowledge Management*, 13(3), pp. 118-131.
- Lopez-Saez, P., Navas-Lopez, J. E., Martin-de-Castro, G. & Cruz-Gonzalez, J., (2010). External knowledge acquisition processes in knowledge-intensive clusters. *Journal of Knowledge Management*, 14(5), pp. 690-707.
- Lyons, P., (2005). A robust approach to employee skill and knowledge development. *Industrial and Commercial Training*, 37(1), pp. 3-9.
- Malhotra, N. K., (2010). *Marketing Research: An Applied Orientation*. 6th ed. Europe: Pearson Education.
- Malhotra, N. K. & Birks, D. F., (2007). Marketing Research: An Applied Approach. In: s.l.:Prentice Hall, p. 363.
- Maylor, H. & Blackmon, K., (2005). *Researching Business and Management*. 1st ed. s.l.:Palgrave Macmillan.
- McAdam, R., Mason, B. & McCrory, J., (2007). Exploring the dichotomies within the tacit knowledge literature: towards a process of tacit knowing in organizations. *Journal of Knowledge Management*, 11(2), pp. 43-59.
- Melkas, H. & Harmaakorpi, V., (2008). Data, information and knowledge in regional innovation networks. *European Journal of Innovation Management*, 11(1), pp. 103-124.
- Miller, R. L., (2003). Interviews. *The A-Z of Social Research*, pp. 167-172.
- Miller, R. L. & Brewer, J. D., (2003.) *The A-Z of Social Research*. 1st ed. s.l.:Sage.
- Newby, P., (2010). *Research Methods for Education*. 1st ed. s.l.:Pearson Education.
- Nonaka, I., 2007. The Knowledge-Creating Company. *Harvard Business Review*, pp. 162-171.

- Nonaka, I. & Takeuchi, H., (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. 1st ed. s.l.:Oxford University Press.
- Nonaka, T., (1991). The knowledge creating company. *Harvard Business Review*, 69(6), pp. 96-104.
- Park, C. & Vertinsky, I., (2012). Korean international joint ventures: how the exchange climate affects tacit knowledge transfer from foreign parent. *International Marketing Review*, 29(2), pp. 151-174.
- Polanyi, M., (1974.) *Personal Knowledge: Towards a Post-Critical Philosophy*. 1st ed. s.l.:University of Chicago Press.
- Polanyi, M. & Prosch, H., (1975). *Meaning*. 1st ed. s.l.:University of Chicago Press.
- Rai, R. K., (2011). Knowledge management and organizational culture: a theoretical integrative framework. *Journal of Knowledge Management*, 15(5), pp. 779-801.
- Rhodes, J. et al., (2008). Factors influencing organizational knowledge transfer: implication for corporate performance. *Journal of Knowledge Management*, 12(3), pp. 84-100.
- Rowe, B. J. & Widener, S. K., (2011). Where Performance Measurement and Knowledge Management Meet: Evaluating and Managing Corporate Knowledge. *Journal of Accounting and Finance*, 11(2), pp. 91-106.
- Saini, M. & Shlonsky, A., (2012). *Systematic Synthesis of Qualitative Research*. 1st ed. s.l.:Oxford University Press.
- Saldana, J., (2012). *The Coding Manual for Qualitative Researchers*. s.l.:SAGE.
- Saunders, M., Lewis, P. & Thornhill, A., (2012). *Research Methods for Business Students*. 6th ed. s.l.:Pearson.
- Seale, C., (1999). *The Quality of Qualitative Research*. 1st ed. s.l.:Sage.
- Seidler-de Alwis, R. & Hartmann, E., (2008). The use of tacit knowledge within innovative companies: knowledge management in innovative enterprises. *Journal of Knowledge Management*, 12(1), pp. 133-147.
- Skully, J. W. et al., (2013). The role of SHRM in turning tacit knowledge into explicit knowledge: a cross-national study of the UK and Malta. *The International Journal of Human Resource Management*, 24(12), pp. 2299-2320.
- Smale, A., (2008). Global HRM integration: a knowledge transfer perspective. *Personnel Review*, 37(2), pp. 145-164.
- Smedlund, A., (2008). The knowledge system of a firm: social capital for explicit, tacit and potential knowledge. *Journal of Knowledge Management*, 12(1), pp. 63-77.

- Smith, E. A., (2001). The role of tacit and explicit knowledge in the workplace. *Journal of Knowledge Management*, 5(4), pp. 311-321.9
- Stefaniak, N., Willems, S., Adam, S. & Meulemans, T., (2008). What is the impact of the explicit knowledge of sequence regularities on both deterministic and probabilistic serial reaction time task performance?. *Memory & Cognition*, 36(7), pp. 1283-1298.
- Stevens, R. H., Millage, J. & Clark, S., (2010). Waves of knowledge management: the flow between tacit and explicit knowledge. *American Journal of Economics and Business Administration*, 2(1), pp. 129-135.
- Stover, M., (2004). Making tacit knowledge explicit: the Ready Reference Database as codified knowledge. *Reference Services Review*, 32(2), pp. 164-173.
- Switzer, C., (2008). Time for change: empowering organizations to succeed in the knowledge economy. *Journal of Knowledge Management*, 12(2), pp. 18-28.
- Taylor, B., Sinha, G. & Ghoshal, T., (2006). *Research Methodology: A guide to for researchers in management and social sciences*. 1st ed. s.l.:Prentice-Hall.
- Thorpe, R. & Holt, R., (2008). Inductive Analysis. *The SAGE Dictionary of Qualitative Management Research*, pp. 113-116.
- Vakola, M., Soderquist, K. E. & Prastacos, G. P., (2007). Competency management in support of organisational change. *International Journal of Manpower*, 28(3), pp. 260-275.
- Visvalingam, S. & Manjit, S. S., (2011). Organisational culture's influence on tacit knowledge-sharing behaviour. *Journal of Knowledge Management*, 15(3), pp. 462-477.
- Wah, L., (1999). Behind the buzz. *Management Review*, 88(4), pp. 17-27.
- Warren, C. A. B., (2004). Interviewing in Qualitative Research. *The SAGE Encyclopedia of Social Science Research Methods*, pp. 522-525.
- Wickramasinghe, N. & Davison, G., (2004). Making Explicit the Implicit Knowledge Assets in Healthcare: The Case of Multidisciplinary Teams in Care and Cure Environments. *Health Care Management Science*, 7(3), pp. 185-195.
- Wilson, J., (2010). *Essentials of Business Research*. 1st ed. s.l.:SAGE.
- Wu, Y., Senoo, D. & Magnier-Watanabe, R., (2010). Diagnosis for organizational knowledge creation: an ontological shift SECI model. *Journal of Knowledge Management*, 14(6), pp. 791-810.
- Yen, D. C., Lee, S. & Koh, S., (2001). Critical knowledge/skill sets required by industries: an empirical analysis. *Industrial Management & Data Systems*, 101(8), pp. 432-442.

Appendix

Semi-Structured Interview Questions

1. Can you explain your role?
2. What knowledge and skills are essential for you to perform your duties?
3. Of skills which you can't explain – how important are they to complete your tasks/aid the overall efficiency of the business?
4. How did you learn these skills yourself?
5. How often must you interact with other people in the organisation?
6. Give an example of a time, in detail, where you had to transfer knowledge
7. Did you feel as though you can easily explain the knowledge which needed to be transferred/shared?
8. When necessary, how do you transfer or share knowledge? (Showing, writing down etc.)
9. Do you consider knowledge transfer and sharing an important part of the organisation?
10. How easy do you find it to transfer knowledge - where do difficulties lie?
11. When do you feel as though you can transfer knowledge effectively?