Opportunities for Tacit Knowledge Transfer within a Local Government Matrix Type Organisation

Author: John Moloney

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Supervisor: Dr John Lannon

University: University of Limerick

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Abstract

This research paper attempts to identify and exploit opportunities that exist within a matrix type organisation for the transfer of tacit knowledge. The research was conducted in the context of the amalgamation of two local authorities and the emergence of a new matrix organisational type structure. In order to accomplish the research the interplay between the external environment, people working within the matrix type organisation and the matrix type organisation itself were evaluated. These three are collectively known as the ‘Target Operating Model’. Additionally, the environment in which local authorities operate in is becoming more competitive and constricted due to resource deficiencies. The literature identifies tacit knowledge as one the most important components of knowledge and the benefits it can generate for organisations. For instance, competitive advantage is one benefit that local authorities will welcome in today’s competitive environment. The views and opinions of senior managers working within the local authority sector, who contributed to this research highlight many opportunities that exist for transfer of tacit knowledge. The research ascertained that current knowledge management customs are recognised in a humanist paradigm and are associated with information technology. Overall, there is a focus on codifying knowledge and managing explicit knowledge with no regard afforded to tacit knowledge management. Additionally, there is an awareness from senior managers that there are serious consequences with respect to knowledge loss and that a formal knowledge management strategy would be welcome. This study concludes with the identification of opportunities that exist within the matrix organisation at team level and provides tentative suggestions to exploit these opportunities to ensure that tacit knowledge can be transferred where possible.
Executive Summary

A common view is that knowledge is power. However, many organisations, particularly public organisations, do not pay attention to how knowledge is generated, captured, stored and transferred across their organisations. In many cases knowledge management endeavours are fixated with information technology based approaches and codifying explicit knowledge. This research paper set out to explore what opportunities exist within a matrix type structure for the transfer of tacit knowledge and aims to capitalise on these opportunities. The research investigates three strands namely, people, the matrix organisation and the external environment all within the context of considerable transformation. This transformation includes the introduction of a matrix organisation within a local authority and the amalgamation of Limerick City and County Councils. Additionally, the reduction in personnel due to natural attrition, retirements, individuals finding work elsewhere and an embargo on recruitment within the public sector have highlighted the significant consequences of tacit knowledge loss.

There are significant disparities within the literature over the definition and function of tacit knowledge management within organisations. Additionally, there is not a great deal of literature in relation to tacit knowledge transference within matrix organisations, particularly is a public sector environment. Much of the literature which relates to knowledge management in the public sector is focused on explicit knowledge and do not address the tacit nature of knowledge. A substantial amount of literature in connection with matrix organisations is concerned with roles and responsibilities, conflict, communication, resources and project teams. Likewise, when evaluating literature relating to tacit knowledge transference dynamics such as socialisation, informal networks, culture, motivation, trust and technology are all important aspects. A common thread running through these factors is that they are very much linked to groups or teams. Thus, this research is concentrated at team level within the local authority organisation.

Primary qualitative data was collected through semi-structured interviews. The questions in the semi-structure interviews were based on information obtained from the literature review. The qualitative data which was gathered was divided into categories of descriptive data which identified commonalities and variables.

In terms of research findings, firstly, there is a clear acceptance that any loss of knowledge from the organisation will result in serious consequences for the organisation. The findings suggest that there is a lack of awareness of tacit knowledge, particularly its importance and how much tacit knowledge contributes to the whole paradigm of knowledge management. The research findings have highlighted the need for a coherent knowledge strategy for the organisation with a particular emphasis on tacit knowledge. Albeit, there are elements of the target operating model that are conducive to tacit knowledge sharing even though not intentionally planned for.
Secondly, the empirical findings of this study have indicated that the matrix type structure provides opportunities for the transference of tacit knowledge by supporting teams. The reduction in the number of functional departments will breakdown the silo affect and will improve horizontal communication and interaction between individuals and teams. Additionally, the grouping of similar staff together into operational teams, creates community of practices throughout the organisation. Furthermore, the physical layout of the open plan offices are favourable in allowing individuals within teams to share their tacit knowledge. From an ICT perspective the implementation of the new SugarCRM system has necessitated the interviewing of substantial number of employees with a purpose of capturing their tacit knowledge and converting it to explicit knowledge to create a detailed process mapping system. This has resulted in converting some tacit knowledge to explicit knowledge. However, questions remain unanswered in relation to this process. For instance, how much tacit knowledge within the organisation has been converted to explicit through these means? Can this approach be employed elsewhere within the organisation to codify tacit or implicit knowledge? And how will the organisation manage the tacit knowledge engendered over time in relation to how effectively and efficiently employees can operate the SugarCRM system? 

Thirdly, teams within the matrix type organisation consist of individuals and the empirical findings are generally positive in connection with a number of themes. For instance, employees are intrinsically motivated to share their knowledge and there is a high level of trust throughout the organisation. The different cultures which exist at organisational, departmental and team level are now merging. The profound changes that are occurring due to employees moving, working in new ways and in a totally different organisational structure have forced both cultures to change to accommodate the new environment. The findings suggest that the profound changes have resulted in generating a shared vision and common ground for all cultural types to work towards. This common perspective has resulted in people working in teams effectively where tacit knowledge transference can take place.

Next, externality in which the local authority operates affects how teams within the matrix type organisation can share their tacit knowledge. For instance, knowledge strategies such as succession planning are difficult to implement as local authorities have little control over recruitment. However, the empirical findings have shown that the obligatory introduction of the PMDS across all local authorities have resulted in compelling people to work within teams. Additionally, it has allowed roles and responsibilities to be clearly defined within the new matrix type organisation. Both, very beneficial in sharing tacit knowledge within a team environment.

Finally, in terms of answering the research question; ‘Will the planned matrix type organisation provide opportunities for the transfer of tacit knowledge within the new organisation?’ The answer is yes to a certain extent. There are opportunities as outlined above at team level which will encourage the transfer of tacit knowledge. However, these are not necessarily planned opportunities and a number of recommendations presented below aim to exploit these opportunities.
1. Develop a coherent knowledge management strategy that encompasses knowledge creation, capture, transfer and effective use. A knowledge management strategy is the vehicle for allowing the exploitation of the opportunities identified in this report.

2. Leadership support is critical to the implementation of a strategy. This study has demonstrated there is an awareness at senior level of the consequences of significant knowledge loss and there is a willingness to ensure knowledge is transferred within the organisation. Leadership is now required to implement a suitable strategy.

3. Exploit existing knowledge management resources within the organisation. For instance, there are significant resources assigned to codifying explicit knowledge. Expand the remit of these individuals and teams to include managing and capture of tacit knowledge where possible.

4. Take advantage of the existing communities of practice in existence and replicate more of them across the organisation at less senior levels.

5. There is a high reliance on outsourcing work due to resource scarcity and as an instrument to mitigating risk. A coherent resource management plan should indentify the skills and expertise of existing staff and ensure that strategically important work remains within the organisation.
Declaration

I hereby certify that this material is entirely my own work and has not been submitted in support of an application for another degree or qualification of the University of Limerick or any other University or Institute of Learning.
Where use has been made of the work of other people, it has been acknowledged and is fully referenced.

Signed: John Moloney
Date: 14th Sept 2014

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Chapter 1 Introduction

1.1 Introduction

From my personal experience working in Limerick County Council I have witnessed the loss of knowledge within my organisation. In recent years a significant number of highly experienced employees have left the organisation due to early retirements, natural attrition and job opportunities elsewhere. It’s evident that there has been a substantial loss in knowledge and in particular tacit knowledge. There is a sentiment that senior management is not fully committed to the whole area of knowledge management and the benefits associated with it. Currently there is no knowledge management strategy in place within the organisation. It is hoped that this research will highlight the importance of tacit knowledge and will be one step further towards creating a knowledge management strategy for the organisation. In June 2011 the Government made a decision to create a single local authority that replaces Limerick City and Limerick County Councils. The new organisation will be a matrix type structure and it’s envisaged that this will create conditions for transformation, innovation, enhanced customer service and opportunities for strategy / policy implementation. The aim of this research is to identify and evaluate the relevant factors associated with the transfer of tacit knowledge within the matrix type structure. Once the factors have been identified and evaluated, the research will aim to ascertain what opportunities exist for the transfer of tacit knowledge within the new organisation. In order to answer the research question; Will the planned matrix type organisation provide opportunities for the transfer of tacit knowledge within the new organisation? three additional research questions were put forward, as follows:

1. What are the current circumstances regarding tacit knowledge management within the organisation?
2. What are the relevant factors or elements of the new organisational structure that will benefit the transfer of tacit knowledge?
3. How can these factors or elements be exploited to provide opportunities for the organisation?

1.2 The literature review

Firstly, the literature review will examine what relevant literature exists on knowledge management within the public sector and aims to bring the information together into a coherent and concise synopsis. Various elements of the public sector will be examined which include workforce planning, reforms, culture change, ICT and other enablers that will affect the transfer of tacit knowledge. Secondly, literature in relation to challenges and limitations of matrix organisations will be explored. Particular attention will be focused on conflict, stress, power struggles as well as roles and
responsibilities. Additionally, the silo mentality will be analysed. Thirdly, factors in connection with tacit knowledge transference will be assessed. These factors take account of the concept of knowledge transfer and interplay between tacit and explicit knowledge. This interplay takes the form of socialisation which involves capturing knowledge through direct interaction with people and having shared experiences. Likewise, externalisation is a process whereby tacit knowledge is transformed into explicit knowledge, this is supported by interactions such as concepts, images, written documents and information technology. The literature review will demonstrate the varying degrees of how tacit knowledge can be conceptually distinguished along a continuum from tacit to explicit. Furthermore, other factors such as motivation, trust, stickiness of tacit knowledge and people and ICT based strategies will be explored. Next, the benefits of tacit knowledge transference is considered in the context of Limerick City and County Councils merging, competitive advantage and the ever changing external environment. Finally, the links between tacit knowledge transfer and matrix organisations are analysed.

1.3 Research Design and Strategy

The research will be classified as both descriptive and exploratory. The descriptive part of this research will classify the type of matrix structure that is being implemented as part of ‘Target Operating Model’. The exploratory element will aim to ascertain the views and encapsulate the experiences of six senior staff consisting of senior managers and directors on tacit knowledge transfer. The data will be collected through targeted semi-structured interviews. A qualitative research approach will enable subjective assessment of attitudes, opinions and behaviours.

1.4 Research Findings

The research findings will present the findings and will begin with an explanation of how and why the semi-structured interviews were conducted, including why the particular informants were chosen. Secondly, the current perspectives on the loss of tacit knowledge management will be investigated. Next, the various enablers and barriers of tacit knowledge sharing will be researched.

1.5 Discussion of findings

The discussion section of the research paper will relate the literature analysis with the research findings. The research findings will be interpreted and the significance of the results discussed. Throughout the discussion the interplay between the matrix type organisation, people and external factors will be investigated. The discussion chapter will firstly focus on knowledge loss and the impact it has for the organisation. Secondly, it will consider the matrix type organisation and what components are conducive to the transfer of tacit knowledge. Next, the impact people and teams have on the transfer of tacit knowledge will be discussed. Finally, the external environment in which local government operates is explored.
Chapter 2: Literature Review

2.1 Introduction
Firstly, the aim of this literature review is to ascertain the level of tacit knowledge management research concerning the public sector. Secondly, the challenges and limitations of matrix organisations are defined together with the benefits of matrix organisations. Next, tacit knowledge is defined and the myriad ways it can be transferred within organisations with a particular emphasis on the barriers and enablers of knowledge transfer. Additionally, the benefits of knowledge transference are examined. Finally, the links between tacit knowledge transference and matrix organisations are explored.

2.2 Knowledge management in the public sector
There is a significant amount of knowledge management research conducted in relation to the importance of KM within the private sector within the existing literature. However, there is limited literature in relation to the public sector. This research is mainly focused at local authority level within the public sector. Syed-Ikhsan & Rowland (1997) have indicated “Relatively little study has been performed on knowledge management and knowledge transfer in the public sector”. Local government is currently undergoing significant changes and a prime example of this is the merge and reorganisation of Limerick City and County Councils. County and City Managers Association (2012) illustrates the level of staffing cuts required through their workforce plan and give recommendations on how to implement the workforce plan. Worryingly, there is no significant mention of knowledge management, knowledge retention or knowledge loss that the Local Government Sector will experience in the coming years. However, Boyle & MacCarthaigh (2011) conducted research for the Institute of Public Administration (IPA) and advocate in the light of reforms within the public service that systematic planning and management of the related loss of competence and knowledge is imperative. Similarly, O’Riordan (2005) identifies concrete steps and cultural changes required within government departments in order to more effectively use and share knowledge. Much of the knowledge management activities that are being implemented by the public sector is centred on ICT and do not address the tacit nature of knowledge. Martin (2003) provides an overview of KM and assesses emerging trends in knowledge management within local governments. He indicated that “much of the higher order policies on knowledge and its management are translating in practice to the delivery of specific services under the umbrella of e-government”. Gaffoor & Cloete (2010) identify a number of knowledge management enablers and how they impact on local government organisations’ knowledge management efforts. Some of these enablers include organisational culture, human resources, IT, organisation structure and leadership. All of these enablers are present within the local government structure however, each enabler should be evaluated in more detail.
2.3 Matrix Organisations

2.3.1 Defining matrix organisations.

Matrix organisations were developed to contend with complexity in uncertain environments. Mee (1969) provides an early concept of a matrix organisation “An organizational system designed as a “web of relationships” rather than a line and staff relationship of work performance”. There are different forms of matrix structures the three most common variants are functional, balanced and project matrices. The proposed target operating model for this study is based on a balanced matrix which is depicted in Appendix C. the power between the functional and operational managers are balanced.

2.3.2 Challenges and limitations of matrix organisations

All organisations face challenges in relation to their organisational structures. Moreover, matrix organisational structures are no exception. Matrix organisations have many challenges and limitations. The main problems which arise in matrix organisations, namely; conflict, balance, stress, administrative and communication costs (Knight, 1976). In terms of conflict Knight argues “…that whenever a matrix organisation is introduced into what was a simple one-way authority structure, it leads to an increased sense of insecurity among managers, a sure recipe for defensive behaviour and personal conflict” (1976). Lawrence & Davis have a similar view when they associate matrix organisation to power struggles: “Managers jockey for power in many organisations, but a matrix design almost encourages them to do so” (2009). Joyce believes “the increased demands of dual supervision in matrix structures contribute to role overload by causing conflicts between multiple role expectations and individuals’ abilities to satisfy such expectations” (1986). Additionally, Jerkovsky is very much aware of the dangers of conflict, “In matrix organisations there is a constant danger that there will be more stress and conflict than people can readily accommodate” (1983). Likewise, Knight (1976) believes that matrix organisations can be a stressful place to work for managers and their subordinates. The stress is generated from role conflict, role ambiguity and role overload. Knight, makes a very important point when he says “Where the project managers are in a very powerful position specialists can get ‘typecast’ and find themselves selected over and over again for the type of work in which they have demonstrated their competence, rather than being given an opportunity to expand their knowledge through a variety of tasks” (1976). This is very much associated with the transfer of tacit knowledge which is discussed in more detail later on. Jerkovsky (1983) also identifies increased stress on functional specialists as a disadvantage of matrix organisations. He believes that this stress is due to “multiple bosses, increased frustration of project managers who do not have exclusive direct control of the functional specialists working under them; and the generally large amount of communication and coordination that is required between functional and project managers” (Jerkovsky, 1983).
Another challenge that matrix organisations create is clarity around roles and responsibilities of the employees within the organisation. Goold & Campbell argue that “managers find matrix structures ambiguous confusing and inefficient. A key reason for these problems is the lack of clarity on the roles that each unit in the matrix is intended to play” (2003). Sy & D'Annunzio found that most employees in large organisations tend to be silo-focused: “Such a focus can lead to an “us versus them” mentality that impedes the coordination and collaboration required for a successful matrix” (2005). Additionally, further issues around silo-focused employees are centred on: personal conflicts, withholding resources for each other, lack of trust, lack of skills and insufficient communication (Sy & D'Annunzio, 2005). However, Kuprenas (2003) identified that implementation problems do occur within matrix organisations but the performance of the organisation under a matrix structure has improved with respect to project delivery. He highlights an important gap in the literature related to the performance of matrix structures. My research paper will be evaluating a matrix organisation in the realm of tacit knowledge transfer. Matric organisations are very much associated with working in project teams thus, this research will be centered around a team environment.

2.4 Tacit Knowledge

2.4.1 Defining tacit knowledge

The word ‘tacit’ means “understood or implied without being stated” (Oxford dictionaries, 2014). Therefore, tacit knowledge means unspoken or hidden knowledge. Polanyi coined the term ‘tacit knowledge’ and in the following example he expresses the significance of tacit knowledge: “You can identify one face out of thousands, but it is nearly impossible to give an adequate description of this face to another person, so that she is able to identify the face” (1966). Polanyi also makes an important distinction between tacit and explicit knowledge. Explicit knowledge can be coded via writing or symbols. But only a limited part of our knowledge is explicit; "we can know more than we can tell" (Polanyi, 1966). Harrison & Hu (2012) and Dalkir (2011) consider tacit knowledge to be more valuable than explicit knowledge and for this knowledge to be transfer cognitive efforts of a sender and receiver are fundamental to tacit knowledge transference. Suppiah & Sandhu (2011) have identified from their search of the literature that 90% of the knowledge in any organisation is embedded and synthesized in people’s heads. However, identifying the location of tacit knowledge can be difficult, if not impossible for organisations. Polanyi (1967) believes the user is unaware of his/her tacit knowledge when it is pure tacit knowledge.

2.4.2 Tacit knowledge transference

The concept of knowledge transfer was first introduced by Teece (1977). Since then a significant amount of research has been undertaken in the area of knowledge management and knowledge
sharing. For instance, the SECI model advocated by Nonaka and Takeuchi (see figure 1) is regularly referred to and is cited in much of the literature regarding knowledge management. This has proven to be an important model to explain how knowledge is transferred and created. The model centres on the knowledge transformation and interplay between tacit and explicit knowledge. It describes how knowledge is created, transformed and transferred within an organisation through four different methods namely: socialization, externalization, combination and internalization. Tacit knowledge transfer can either be transferred from a tacit source to another tacit source or it can be transferred from a tacit source to an explicit source. The tacit to tacit transference is very much dependant on social interactions among people. For instance, informal networks play an essential role in transferring tacit knowledge (Nie, Lin, Ma, & Nakamori, 2010). Nonaka (1994) models knowledge transfer as a spiral process conveying either tacit or explicit knowledge as indicted in Figure 1. The manner in which tacit knowledge is transferred from person to person is socialization. Socialization is very much a “living phenomenon,” involving capturing knowledge through direct interaction with people and having shared experiences. Likewise, all knowledge is social in some way or the other, and thus contingent on social structures existing in social systems (Vygotsky, 1978) (Vygotsky, Thought and Language, 1986). Regarding the transfer from tacit knowledge to explicit knowledge, Nonaka refers to this process as externalization. Externalization is a process whereby “tacit knowledge is transformed into explicit knowledge which will then enable others to share this knowledge thus forming new knowledge” (1994). Externalization is supported by interactions such as concepts, images, written documents and information technology. This research is concerned with the socialization and externalization components of Nonaka’s model as it deals with the transference of tacit knowledge.

Figure 1

However Glisby, (2003) cautions that Nonaka’s model ‘must be seen first and foremost as a product of the environment from which it emerged, namely Japan’. Nonaka & Krogh, have an interesting viewpoint when they say that “tacit and explicit knowledge can be conceptually distinguished along a continuum” (2009). They believe that tacit knowledge can be accessible through consciousness if it
leans towards the explicit side of the continuum. Equally, the closer tacit knowledge is to the tacit end of the scale, it is much more difficult to identify and transfer. Chilton & Bloodgood, (2007) present a scale that can be used to identify whether individuals rely more on tacit or explicit knowledge in the completion of a task and to indentify what tasks might be more conducive to either tacit or explicit knowledge. Likewise by understanding the philosophic roots of the concept of tacit knowledge Mooradian identified that relevant tacit knowledge can vary in difficulty along a scale of easy to practically impossible (2005). Puusa & Eerikainen argue that tacit knowledge encompasses different elements, some of which can be communicated and made explicit. “Examples of such are individuals or organisations accustomed lines of action that are based on explicit instructions. On the other hand individual-specific tacit knowledge that includes feelings, emotions and intuition, individual’s intuitive behaviour or personal relationships, can be considered as “the genuine tacit knowledge” in a sense it cannot be made visible or be transferred”(Puusa & Eerikainen). Taylor (2007) holds the view that it is possible to “externalize” some parts of implicit knowledge however, it’s improbable that some types of implicit knowledge can be converted to explicit knowledge: “some aspects of implicit knowledge, particularly those related to creativity, intuition, and skill performance, are unlikely to ever be made completely explicit…” (Taylor, 2007). While Polanyi (1966) maintains that tacit knowledge manifests itself in the meeting between the individual and culture. Suppiah (2010) ascertains that organisation’s culture types influence tacit knowledge behaviour and that such influences may be positive or negative depending on culture type. From the literature it is evident that there are many different views of what supports the transfer of tacit knowledge.

Moving away from an individualist perspective of knowledge management there are other perspectives also. For instance Grant (1996) take the view that knowledge exists through the coordination mechanisms through which firms integrate the specialist knowledge of their members. This view is very much centred at organisation level. Likewise, (Spender, 1998) views knowledge as a dynamic system of processes involving several different types of knowledge and collectively makes up organisational knowledge. While (Poell et.al, 2003) argues that systematic learning can be achieved at group level through project based learning.

In the literature there are a number of factors that either promote or inhibit the transfer of tacit knowledge within an organisation, between teams and between employees. Gubbins, et al. (2012) believe that organisations both use people and technology focused strategies to support the sharing of tacit knowledge. An important point which they make is that people focused strategies will enable the sharing of more relevant tacit knowledge. Additionally, the process of sharing tacit knowledge is very much dependant on a willing and participative social interaction from both the ‘giver’ and ‘receiver’ of knowledge. He & Wei (2009) believe the study of continued knowledge sharing is rare and have conducted some research that examines the differences among driving factors in two behavioural contexts: knowledge contribution and knowledge seeking behaviour. Their research identified three behavioural factors namely:
• Factors which influence knowledge contribution such as image, enjoyment and reciprocity.
• Factors influencing knowledge seeking such as perceived knowledge and knowledge growth.
• Factors which influence both knowledge contribution and knowledge seeking such as organisational reward, management influence and effort.

Motivation is very much associated with behavioural factors and employees are motivated intrinsically as well as extrinsically (Osterloh & Frey, 2000). Intrinsic motivation is crucial when tacit knowledge in and between teams must be transferred. Additionally, Osterloh & Frey believe organisational forms enable different kinds of motivation and have different capacities to generate and transfer tacit knowledge. It can be more difficult for local government organisations to motivate employees extrinsically compared to private organisations. For instance, local government organisations are bound by national pay agreements and are not in a position to offer monetary incentives to motivate employees. However, intrinsic motivation is grounded in an employees’ own behavioural makeup and self-motivation and considered as a significant organisational advantage. For example, intrinsic motivation can lower transaction costs and raise trust and social capital (Polley, 1995). Motivation is fundamental in sharing tacit knowledge Desouza (2003) argues that motivation is the key to sharing tacit knowledge and that no amount of investments in ICT systems will work unless accompanied by motivated employees. Deviating from the common view that lack of motivational factors can create barriers to knowledge transfer Szulanski (1996) suggests that the ‘stickiness’ of knowledge is the most important barrier to knowledge transfer. He identified the three origins of stickiness, namely, lack of absorptive capacity of the recipient, causal ambiguity, and an arduous relationship between the source and the recipient.

Trust is another common barrier for knowledge transfer mentioned in the literature. Foos, Schum, & Rothenberg (2006) paper, provides evidence that trust, early involvement and due diligence influence tacit knowledge transfer. The willingness of employees within an organisation to share knowledge with each other is very much dependant on trust. Holste & Fields viewpoint on trust is that “affect-based trust has a greater influence on willingness to share tacit knowledge, while cognition-based trust has a larger influence on willingness to use tacit knowledge. Cognition-based trust is a type of trust that is established on fact, past experiences and the ”track record” of the individual while affect-based trust is grounded on affective feelings or emotions for another person or possibly the organisation” (2010). If an individual has an affection, or they really like a person, they are much more likely to trust a fellow employee. Joia & Lemos (2010) also find mutual trust as an important factor for tacit knowledge transfer. Furthermore, they identify in an exploratory and empirical way other relevant factors associated with the transfer of tacit knowledge within a large government-controlled Brazilian oil company. These factors are grouped under three headings in Table 1 below.
There are also barriers associated with the transfer of knowledge within organisations. Riege (2005) brings together a substantial number of knowledge-sharing barriers which demonstrate the complexity of knowledge sharing as a value-creating organisational activity. However, he does not fully distinguish whether they are related to tacit or explicit knowledge. Some of the main barriers he considered are included in Table 2 below.

<table>
<thead>
<tr>
<th>Potential individual barriers</th>
<th>Potential organisational barriers</th>
<th>Potential technology barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• General lack of time</td>
<td>• Integration of km strategy and sharing initiatives in company’s goals and strategic approach are missing</td>
<td>• Lack of integration of IT systems and processes impedes on the way people do things</td>
</tr>
<tr>
<td>• Jeopardise people’s job security</td>
<td>• Lack of leadership in terms of clearly communicating the benefits and values of knowledge sharing practices</td>
<td>• Lack of technical support (internal or external) and immediate maintenance of integrated IT systems obstructs work routines and communication flows</td>
</tr>
<tr>
<td>• Low awareness and realisation of the value and benefit of transferring knowledge</td>
<td>• Shortage of formal and informal spaces to share, reflect and generate (new) knowledge</td>
<td>• Unrealistic expectations of employees as to what technology can do and cannot do</td>
</tr>
<tr>
<td>• Dominance in sharing explicit over tacit</td>
<td>• Lack of transparent rewards and recognition systems that would motivate people to share more of their knowledge</td>
<td>• Lack of compatibility between diverse IT systems and processes</td>
</tr>
<tr>
<td>• Differences in experience levels</td>
<td>• Corporate culture does not provide sufficient support for sharing practices;</td>
<td>• Mismatch between individuals’ need requirements and integrated IT systems and processes restricts sharing practices</td>
</tr>
<tr>
<td>• Lack of contact time and interaction between knowledge sources and recipients;</td>
<td>• Knowledge retention of highly skilled and experienced staff is not a high priority</td>
<td>• Reluctance to use IT systems due to lack of familiarity and experience with them</td>
</tr>
<tr>
<td>• Poor verbal/written communication and interpersonal skills</td>
<td>• Deficiency of company resources that would provide adequate sharing opportunities</td>
<td>• Lack of training regarding employee familiarisation of new IT systems and processes</td>
</tr>
<tr>
<td>• Age differences</td>
<td>• External competitiveness within business units or functional areas and between subsidiaries can be high</td>
<td></td>
</tr>
<tr>
<td>• Gender differences</td>
<td>• Communication and knowledge flows are restricted into certain directions (e.g. top-down);</td>
<td></td>
</tr>
<tr>
<td>• Lack of social network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Taking ownership of intellectual property due to fear of not receiving</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2

Even though much of the literature reviewed so far is based mainly on theoretical concepts Yeh, Lai, & Ho’s (2006) research combines theory with reality. Their findings identified various enablers for
effective knowledge management, namely; strategy and leadership, organisation culture, people and informational technology enablers. Information technology has been identified numerous times throughout the literature however, it should be used with caution and not used as a solution in isolation.

2.5 Benefits of tacit knowledge transfer

It is broadly accepted in the literature that the most valuable knowledge that many organisations possess lies not in codifiable knowledge but in the heads of their long-term serving and most experienced staff in the form of tacit knowledge. Some argue that if knowledge is left in tacit form in people’s heads then the only way to transfer tacit knowledge within the organisation is to move the individual that possess the tacit knowledge. This should be avoided as it would be a costly exercise. There are major implications for organisations if they intend to transfer some of that knowledge to other staff; in short, tacit knowledge capture will be impossible. As Smith points out “vital tacit knowledge vanishes when companies reorganize, merge, or downsize” (2001). Currently Limerick City and County Council are both merging and reorganising. Organisations must therefore use knowledge sharing approaches that do not require time consuming and costly knowledge capture approaches; instead, approaches should rely on dialogue between a knowledge owner and a knowledge user which can be cost effective to implement. The study by Daghfous, Belkhodja, & Angell study indicates that knowledge loss can result in “significant and widespread performance implications for an organisation” (2013). Additionally, their study shows that “strategies that target the retention of tacit knowledge and its inclusion in firm’s routines are effective to mitigate knowledge loss”. Accordingly, organisations have to accept that knowledge is a valuable intangible asset for creating and preserving a competitive advantage over its incumbents (Reychav & Weizberg, 2010). For companies to achieve continuous growth in their business, knowledge-sharing practices need to become an integral part of the day-to-day conversation (Riege, 2005). There are many benefits to the successful transference of tacit knowledge. Osterloh & Frey point out that “Adherents of the resource-based view generally agree that the most strategically important resource is knowledge” (2000). Ichijo & Nonaka put forth that in today’s fast changing global environment “the success of a company in the twenty-first century will be determined by the extent to which its leaders can develop intellectual capital through knowledge creation and knowledge-sharing on a global basis” (2006). Knowledge constitutes a competitive advantage.

By illustrating the importance of tacit knowledge and the benefits it can provide for organisations will result in management support and participation in this research paper. Johannessen (2001) provides a good understanding of the role of tacit knowledge and its importance. He gives an example of converting tacit knowledge to explicit knowledge when he describes the changes made in a Norwegian shipyard, employing 650 people. The changes focused on teams rather than on IT systems. Additionally,
Grant (1996) views tacit knowledge as a key role to player in a firm’s growth and economic competitiveness. A strong argument can be made for the implementation of a knowledge management strategy with a particular emphasis on tacit knowledge because many tacit knowledge practices are inexpensive to implement and expeditious to implement compared to an explicit approach. For instance, there is a high level of intrinsic motivation and trust within employees which should be take advantage of.

2.6 Links between tacit knowledge transfer and matrix organisations

This research is concerned with how a new matrix type organisational structure (part of the Target Operating Model) can provide opportunities for the transfer of tacit knowledge. There is not a considerable expanse of literature that deals with how tacit knowledge is transferred within matrix organisations. Nesheim (2011), examines how horizontal knowledge communities contribute to knowledge application. Interestingly, he analyses the interplay between the communities, the line organisation and the employees and how they facilitate knowledge application. Koskinen, Pihlanto, & Vanharanta, suggest that “the situations where the members of a project team can interact face-to-face with each other, reinforces tacit knowledge sharing” (2003). Another perspective is trust; Savolainen (2008) examines trust as a relational concept and individual-related motivational force for sharing tacit knowledge. Hanisch, Lindner, Mueller, & Wald, believe above all that organisational culture seems to be a critical factor for successful project knowledge management: “Even the best IT systems and methodologies for supporting the storage and dispersion of knowledge gained in projects are useless if the employees resist using them” (2009). They also indentify the need for further research that will analyse the causalities of successful project knowledge management in different types of projects, organisations, and industries. Additionally, Ajmal & Koskinen (2008) deem, for effective knowledge transfer in project-based organisations, it is crucially important to prepare the organisational culture to accept, adopt, and utilise new knowledge-transfer activities. The links between tacit knowledge transfer and the matrix organisation is very much associated with teams. For instance, project teams are an essential part of a matrix organisation and teams consist of individuals all interacting to share their tacit knowledge.

2.7 Conclusion

Firstly, there is a limited amount of literature in relation to tacit knowledge management within the public sector. Worryingly, much of the knowledge management activities that the public sector are implementing are based on ICT. Secondly, matrix organisations were developed to contend with complexity in uncertain environments (Mee, 1969) and tacit knowledge can be very uncertain. Matrix organisations do bring challenges and limitations such as conflict, communication issues, trust issues, confusion in relation to roles and responsibilities. On the flip side there are benefits, namely, efficient use of resources and information that flows across and up the organisation. Thirdly, there has been a
significant amount of research conducted around the subject of tacit knowledge transference. The SECI model advocated by Nonaka and Takeuchi is regularly referred to in the literature regarding knowledge management and has proven to be an important model to explain how knowledge is transferred and created. The tacitness of knowledge is a very important factor in determining if tacit knowledge can be shared or even identified. Many authors believe tacit knowledge is a social phenomenon and transfer is very much dependant on personal cogitative behaviours and social skills. While others believe motivation and trust play an essential role as well. Next, the literature identified the value and the many benefits associated with the successful transference of tacit knowledge. Finally, links between tacit knowledge transfer and matrix organisations are considered. There is not a significant amount of literature in this area. (McAdam, Mason, & McCrory, 2007) critically examines the definition and conception of tacit knowledge in existing peer reviewed literature and suggests how research agendas can be founded to clarify understanding for praxis. They suggest that an improved understanding of tacit knowledge is needed to underpin and further develop the knowledge management paradigm. Their paper suggests a number of ways in which tacit knowledge can be developed in organizations at organizational, group and individual levels. This research aims to add to the limited subject matter around tacit knowledge transfer within the local government sector as well as tacit knowledge transfer within matrix organisations at group or team level.
Chapter 3: Research Design and Strategy

3.1 Study Context

To maximise the contribution of local government in Limerick City and County it was recognised that the financial, managerial and organisational resources of a sizeable local authority were required. In order to achieve this a new Limerick Authority (Limerick City and County Council), replacing Limerick City Council and Limerick County Council was setup. This amalgamation eliminates duplication, frees up financial and human resources. In addition, it resulted in the introduction of a new matrix type organisation structure. Currently, all of this change is in transition and this research is conducted at a single point in time within the transition period. This is a positive aspect because research findings and recommendations produced in this study can be combined with many of the new strategies, policies and procedures being put into action.

3.2 Research Design and Data Collection

The research will be classified as both descriptive and exploratory. The descriptive part of this research will be undertaken to classify the type of matrix structure and how is forms part of the ‘Target Operating Model’. This information will form the basis for the exploratory element of the study. The exploratory element will aim to ascertain the views and encapsulate the experiences of six senior staff consisting of senior managers and directors on tacit knowledge transfer. The reasoning for choosing these particular subjects is that they are in senior positions within the organisation and are very much involved with implementing the rollout of the Target Operating Model. Additionally, the subjects have experience in transferring tacit knowledge to subordinates throughout their long and varied careers and have significant experience in mentoring and coaching personnel. Moreover, the intended inclusion of all directors/senior managers in this research provides validity for this research. This type of research is very much grounded in social research and a subjective approach will allow the exploration of attitudes, opinions and behaviours of the social actors involved in this research. It is expected that different social actors will have different experiences of tacit knowledge and an interpretive approach will take this into account. Fundamentally, tacit knowledge is difficult to express with words, numbers or other symbols. Sometimes the tacit knowledge holder does not know that he/she owns something valuable or important, because he/she uses it spontaneously. The data will be collected through targeted semi-structured interviews. A qualitative research approach will enable subjective assessment of attitudes, opinions and behaviours. Similarly, the majority of the research identified in the literature review used a qualitative approach. This similarity between primary data gathering methods and methods used in secondary data will enable me to compare like with like. Primary data will be gathered via personal interviews with managers and directors within the
organisation. The interviews will be semi-structured in which some of the questions will be the same for all participants, but at the same time there will be opportunity to acquire deeper information. Tacit knowledge is not a widely understood topic and this may have some constraints on the study. The participants will be initially approached via email explaining the research topic comprehensively. No information on the semi structure information will be given at this stage as this may influence the answers of the precipitants later on.

3.3 Presentation and Analysis of results

Primary data collected form the interview process will be in raw format and will have to be converted to meaningful information. This qualitative data which is gathered will be divided into categories of descriptive data which will identify commonalities and variables. Additionally, it will be in a format which will allow a comparison with information collected through secondary sources. These will enable common links and new information to be identified. Appropriate validity and reliability standards are important as they will establish credibility of the study and its findings. In relation to the collection of primary data via interviews the validity and reliability of the data will be assured by a number of different approaches namely:

1. Findings from primary data will be compared to findings from existing literature identified within the literature review. It is expected that similarities will be identified.
2. Subjects will be varied. Subjects will be selected from two different organisations, Limerick County Council and Limerick City Council. Furthermore, each of the subjects will be from different functional departments within the organisations.
3. Large sample size. It is planned to interview all the directors within the organisations.
4. Strict control of measurement bias. From initial contact with the subjects all correspondence will be equal and all will be treated the same way. A systematic approach to data collection from all sources. Additionally during the interview process there will be no leading questions which may in some way unduly favour one response over another.
5. Reliability the semi-structure interviews will be designed with the intention of getting the same answer twice from different angles where possible.

The results of this study will be presented in factual format in the results chapter. It is envisaged that information will be laid out in tables and graphs to give the reader an overall understanding of the results and how they relate to the ‘Target Operating Model’. Additionally, verbatim quotes from participants will be used to portray concepts and opinions.
Chapter 4: Research Findings

4.1 Research findings
The following chapter presents the findings of this research and begins with an explanation of why and how the findings are structured. Secondly, the current perspectives on the loss of tacit knowledge management are explored. Next, the various enablers and barriers of tacit knowledge sharing are presented. A comprehensive analysis and discussion of the findings are included in the subsequent chapter.

4.2 Semi-structure interview
There were ten invitations sent to past and present directors / senior managers to inform this research; out of the ten invitations sent there were six positive replies. Between the 12th and the 28th August 2014 six semi structured interview were conducted lasting on average 1hr 18mins. All informants were fully engaged and demonstrated a genuine level of interest, which indicates a high level of management support for a tacit knowledge management strategy. Each of the six informants are referred to as D1 to D6 in this research to necessitate confidentiality. The structure of the semi-structured interviews are attached in appendix A. The structure allowed informants to expand on the questions asked and to offer their own supplementary data where necessary. More specifically, the semi-structured interview is arrange in three prearranged parts. The first part of the semi structured interview aims to ascertain how tacit knowledge is managed within the organisation and what are the consequences of tacit knowledge loss. Secondly, the various elements of the target operating model are explored (this is illustrated in the venn diagram, Figure 1); this section is sub-divided into two areas namely, people focused and organisational focused elements that will support the transfer of tacit knowledge. Each of the areas are closely interrelated and there are overlaps between different elements. For example, culture is very much associated with people and the organisation structure. Finally, the informants were given a final opportunity to incorporate any other opinions they had on tacit knowledge which the interview may not have encompassed.
Figure 1. Target Operating Model

The research findings section is closely inter-linked with the literature review and discussion of findings sections as shown in table 3 below.

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<td>4.3, 4.4, 4.5, 4.6</td>
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Table 3 Interrelationships between sections of research paper
4.3 Current perspectives on tacit knowledge management

In the context of Limerick City Council and Limerick County Council merging to form a new organisation, all informants have experienced significant tacit knowledge loss within the organisation due to the reduction in staff numbers through natural attrition, recruitment bans and employees finding work opportunities elsewhere.

‘Two managers and four directors have gone at senior management level, which is a lot to go. We are aware of key personnel which have left and they are a loss, but the system within the organisation is robust enough to carry on and I am not aware there is a calamities reaction anywhere. Very often between the action and reaction there can be a long period of time before that loss is felt’ (D1).

There is a recognition that there are serious consequences of losing knowledge, particularly tacit knowledge due to the reduction in staff numbers.

‘There are serious impediments there which managers around the country are concerned about. We have no recruitment and no promotions so what happens to the tacit knowledge that people possess who are working at the higher level in terms how to deliver programs, how to interact with the department and other state bodies. If that isn’t being acquired by other staff members it will affect the capacity of the system to work and deliver’ (D1).

While there is an appreciation that there will be consequences of losing tacit knowledge, there is a view that the standardisation and simplification of the processes at the core of the target operating model may limit the need somewhat for the transference of tacit knowledge going forward. The standardisation and simplification of processes which are currently being embarked upon consists of interviewing staff members with a purpose of mapping out processes and procedures for each service within the organisation. Effectively, this process is capturing tacit knowledge and converting it to codifiable knowledge.

‘A lot of what we can do we can standardise and simplify and make it more efficient. Therefore, that has a knock-on effect for the amount of tacit knowledge that is required. Sometime we overcomplicate what we do’ (D5).’

Additionally, the loss of tacit knowledge experienced can be in part mitigated because the organisation is going through such a radical change that people will have to learn how to do things in a new way altogether. It seems that people are more comfortable with dealing with explicit knowledge rather than tacit knowledge, Gloet & Berrell (2003) claim that in many cases within organisations knowledge strategies will tend to be distorted in favour of those consistent with thinking in the IT
paradigm, mainly because people feel more comfortable dealing with explicit information rather than tacit.

‘On the other hand, one counter balance is the organisation is going through so much change the people in the organisation will have to readjust and relearn anyway. It mitigates some of the tacit knowledge loss. If the organisation wasn’t going through the change that it is going through the level of loss would be much greater’ (D3).

The organisation is following an ICT based approach to managing knowledge within the organisation. However, there is little attention given to knowledge that is at the tacit end of the scale as opposed to knowledge at the codifiable end of the scale of tacitness.

‘Working towards an electronic records management system, that is mainly explicit. There is no consideration given toward tacit’ (D6).

There is no formal knowledge management strategy in place even though the risk of knowledge loss is discussed in an informal manner among managers. All informants believe that knowledge loss poses a significant risk to the organisation.

‘Knowledge loss is a risk and should be part of our risk register’ (D4).

Even though there is no formal knowledge management strategy in place, informants have identified elements of the target operating model that are conducive to the sharing of tacit knowledge. For instance, there is a culture of mentoring within the organisation and working within teams. Additionally, governmental policies such as the introduction of PMDS within the local government systems forced the organisation to define roles and responsibilities across the organisation and work in a team based environment.

‘In my mind there is a knowledge management strategy because to say there isn’t a strategy is like saying you have people that are operating completely insular and not engaging with other people either their subordinates or colleges and there’s nothing being transferred on. I don’t accept that principle because people are transferring tacit knowledge. For instance, subordinates regularly are observing in meetings where they gain knowledge on how things are done. We don’t have that written down and that may be the failing that we may have. Maybe we should develop one that recognises what is actually happening on the ground’ (D2).
‘Knowledge strategy is a concept which hasn’t been labelled and identified. Initiatives like PMDS will over time help to incentive and value the asset. HR has planned to broaden out the PMDS into a competence framework providing support and coaching for people starting with senior staff and will cascade throughout the organisation’ (D3).

There is a clear belief that the CEO and the management team within the organisation are responsible for the implementation of a knowledge management strategy. Additionally, the HR department with support of the senior change management team would be required to implement such a strategy within the new target operating model. However, there is a view that impediments such as resources and time are factors the organisation has to contend with.

4.4 Tacit knowledge sharing enablers and barriers within the matrix type structure

4.4.1 Direct interaction among staff members

At the core of the matrix type structure is reducing functional departments and streamlining and simplifying processes across all departments which entails the elimination of functional barriers. Both Limerick City and Limerick County Council’s former organisation structures were hierarchical; see Appendix B. This type of structure generated definite barriers between different functional departments. For instance, the line of communication was vertical and very inefficient.

‘The new organisation will support interaction among staff because it’s a move towards an activity based as opposed to a service based mode. So staff will no longer see themselves as in ‘one’ department. There will be more communicating across boundaries and people will be grouped according to activities. (D2).

Likeminded people will be grouped together in activities based departments; effectively working in teams. There is a view that there are significant advantages to the transference of tacit knowledge of grouping similar staff members together. For example, there will be a richer knowledge base to exploit.

‘The new organisation has the potential to assist and facilitate the transfer of tacit knowledge. For instance, people have been assigned to customer services and have come from a background of customer services. Therefore, they would have a lot of tacit knowledge from their previous experiences. By grouping customer services people together their tacit knowledge can be amalgamated and condensed.’(D3).

4.4.2 Informal knowledge communities
Knowledge communities take many forms within the organisation. There are communities of practice within the organisation where senior engineers can meet and exchange ideas. At national level there are groups where directors and IT staff can meet and discuss ideas and exchange knowledge. These informal knowledge communities tend to be associated at the higher grades within the organisation. Again there can be equated to the team base approach in 4.4.1 above. The matrix type organisation provides an opportunity for more people to meet across functional boundaries which is essential for the transference of tacit knowledge. Additionally, it empowers people which is a motivational factor for them to share their tacit knowledge. This is discussed further 4.5.1 below.

‘The new organisation will support cross functional structures and provide opportunities for meeting people’ (D2).

‘One of the design principals of the matrix type organisation is openness and transparency for everybody. This leads to innovation and empowers people’ (D5).

4.4.3 Open Plan Office
The physical organisational structure of the matrix type organisation takes the form of open plan offices in seven different locations. There is a view that the open plan office in conducive to facilitating discussion and allows ideas to be shared across teams. Such informal story-telling and knowledge-sharing is complex and difficult to measure because it is very much dependant on the attitudes and behaviour of individuals.

‘By in large the open plan office arrangement is conducive to the sharing of knowledge and information as well as people asking and receiving information. Knocking on the door is a physical obstacle’ (D3).

‘While I am working in the open plan office I can hear what’s happening on the phone. Good for solving problem within teams and its good for tacit knowledge transfer’ (D6).

4.4.4 Conflict/Power struggles
Initially there was a feeling that the Limerick City Council was been subsumed by Limerick County Council and there was a level of fear and staff members were very protective of their sections.

‘The County way is being imposed on the City because of the sheer numbers’ (D1).

Initially people were defensive over their areas of work and everyone thought they were doing very special unique jobs. People saw what was happening they realised that processes could be standardised across departments. Every organisation has some level of conflict but the informants take
the view new target operating model will help to reducing conflict because there will be less functional areas, less directors and more teamwork. Additionally, roles and responsibilities are clearly defined.

‘We are always going to have internal issues. Reducing the numbers of areas should reduce the chance of conflict. Less divisions less conflict. I think the new structure should help that’ (D2).

4.5 Tacit knowledge sharing enables and barriers associated with people

4.5.1 Staff members’ motivation to share tacit knowledge
Within staff members it is widely accepted that all levels tend to be motivated intrinsically to share their tacit knowledge. Generosity and pride have been identified as a common reasons for people share their tacit knowledge. This enabler is present and is very much linked to the culture of the organisation.

‘Motivations can vary but people share out of generosity also there is an element of pride in showing what they know’ (D3).

‘More and more staff are leaving and staff are being put under more pressure. So there is a sense now that we all need to help each other out the best we can. No one wants to see people struggling or being put under pressure. There are no financial rewards there, it comes from a fact there is pride in what they do’ (D4).

More importantly, there are also other factors which motivate staff members to share their tacit knowledge. Individuals work as part of teams to deliver various projects and services across the organisation. Teamwork is a key motivator for individuals to share their knowledge.

‘Generally people work within teams because in order to get the job done teamwork is required. There is always a turnover in personnel but the service has to continue. Dependence on teamwork or collegiality is very much evident’ (D1).

Furthermore, in conjunction with intrinsic motivation of individuals, the matrix type organisation encourages people to share their tacit knowledge through working and observing in a team environment.
‘New model is all about delegating decision making. Transferring knowledge is part and parcel of you job. It’s all about culture and a way of doing thing. People are general encouraged to distribute the knowledge and observe others’ (D2).

‘PMDS makes people work in teams and people have to be generous with their knowledge to help team strategy. Team ethics, team ethos, team culture are important aspects of PMDS’ (D2).

Examining what drives the intrinsic motivation within individuals may very well be down to the fundamental difference between public and private organisations. Examples of such differences are profit, market share and governmental control. The very essence of a local authority is to serve the citizen rather than making a profit.

‘We are different from the private sector, we are not forced by the bottom line such as profit, market share, share price and other various factors, and we are motivated by different factors’ (D1).

These difference can pose significant challenges to local authorities particularly in the area of succession planning and long term strategy in relation to tacit knowledge management.

‘The private sector can be cleverer in a sense they can manoeuvre people into positions. It’s a long term strategy. In terms of the public sector when jobs are advertised it can be hit and miss so you can’t build that chain of succession as easily as you can in the private sector’ (D4).

4.5.2 Culture

There is a general view that the target operation model consists of an organisational structure. However, the various roles within that organisational structure are populated by two different organisational cultures converging namely, Limerick City Council and Limerick County Council. Additionally, each of these organisations comprise of different people, teams and departments which gives rise to a variety of micro-cultures.

‘There are two different organisations coming together and what I am aware of is that culture tends not to be written down. What is the essences of what we do? Do we regulate, are we a controlling organisation, and are we a developing organisation? If one tries to simplify all this into one coherent message you would instinctively have a clash because Limerick County Council as it was had a huge area to administer and didn’t have an urban infrastructure to manage, a lot of conflicts will have to be sorted out before the culture of the new organisation is determined’ (D1).
'Each department has different cultures, which reflects the different laws, regulation and policies that controls each department which can be good for diversity as one moves around in his/her career.’ (D1)

There is a view that the target operating model will provide opportunity for the culture to change and there is a view that the new culture which is just beginning to emerge is open to change and innovation albeit at a slow rate. This is very much evident from the recent merge where staff cooperated and blended to ensure services where delivered to the public.

'A culture of innovation, changing, looking at things differently and trying to do things differently has emerged over the last two years, by and large if you go through the sections there are people stepping up to the mark’ (D2).

The different organisational cultures have been established over a long period of time and developed around different external environments. For instance, Limerick City Council is very much influenced by an urban environment which resulted in an organisational culture which is accustomed to dealing with sensitive issues under the watchful eye of the media and public. There are also other external factors such as political and governmental factors that have shaped the organisational cultures.

'We tend to be a reasonably open organisation and are very much influenced by externality so there are political, community, governmental externality. They all bear on how we react and will affect the organisational culture’ (D1).

There is a recognition that the matrix type organisation can generate significant benefits. This is an ideal opportunity for the merge of two cultures. For instance, a changing culture will feature delegated decision making. As the organisation changes, as senior manager numbers decline, to follow through there will be more empowerment at less senior levels and more people working in teams.

'We have a burning platform, we have an opportunity to change the culture. A lot has to be driven from the top and it’s not going to change overnight, just because there is a new system is being put in place. Culture takes a long time to change’ (D4).

4.5.3 Level of Trust

There is a clear consensus that there is a high level of trust among staff member in the new organisation. By and large there is good trust among people across the organisation. There are a lot of people working together, solving problems and people co-operating within their teams. This creates a healthy environment of tacit knowledge sharing.
'There is a fundamental trust there. I think most people have some understanding of the journey we are on' (D3).

4.5.4 Age

Due to the recruitment ban the average age of the workforce is rising and there are very few staff under the age of thirty within the organisation. There are concerns regarding younger people bring fresh ideas into the organisation. Additionally, younger staff member are more capable in utilising technology. In the literature several studies have implied that younger employees tend to be more individualistic and less trusting of others than older employees. For example, (Strauss & Howe, 1993); these pieces of research suggest that age may affect an employee’s commitment to share their tacit knowledge.

'Where I feel the problem would be with tacit knowledge is that we are not recruiting people and I think that it is a great failure of all of this change which is occurring and where I have the greatest discomfort is that we have only five staff under the age of thirty' (D1).
Chapter 5: Discussion of Findings

5.1 Discussion of Findings
The discussion section of the research paper relates the literature analysis with the research findings which was generated in this study. The overarching research question was: Will the planned matrix type organisation provide opportunities for the transfer of tacit knowledge within the new organisation?

To better answer this research question, three additional research questions were put forward, as follows:
1. What are the current circumstances regarding tacit knowledge management within the organisation?
2. What are the relevant factors or elements of the new organisational structure that will benefit the transfer of tacit knowledge?
3. How can these factors or elements be exploited to provide opportunities for the organisation?

The matrix type organisation cannot be considered as a standalone component. It is an organisational structure that is profoundly influenced by the people working within teams and the external environment in which it functions. The three components of the target operating model (illustrated in Figure 1) are closely interrelated and all affect tacit knowledge transference. The discussion will examine the three components of the target operating model and will ultimately analyse how teams can support the transference of tacit knowledge within the matrix type organisation.

5.2 Tacit knowledge management
All informants that contributed to this research have experienced negative corollaries in terms of significant knowledge loss due to staff and colleagues leaving the organisation. There are serious consequences such as lower efficiencies and ultimately lost revenue for the organisation. So why is there no emphasis on tacit knowledge management within the new matrix type organisation? The findings suggest that there is a lack of awareness of tacit knowledge, particularly its importance and how much tacit knowledge contributes to the whole paradigm of knowledge. Many of the informants believe that explicit knowledge is more important than tacit knowledge thus, the new matrix type structure will simplify processes thus reducing the need for tacit knowledge transfer. There is a focus on explicit knowledge and codifying this knowledge within the new matrix type organisation. For instance, the appointment of a records manager and additional staff to the ICT Department to aid in codifying information and knowledge. Additionally, the ICT based SugarCRM system will be used as the main communication tool across the matrix structure. This is very much in line with what is stated in the literature that much of the knowledge management activities that are being implemented by the public sector are centred on ICT and do not address the tacit nature of knowledge.
The literature also points to effective tacit knowledge management as a key source of competitive advantage. When comparing private and public sector companies, one significant difference is the importance private organisations place on competitive advantage. In essence, it is a matter of survival for private organisations as competitive advantage is a means to survive. However, in recent years local authorities have come under competitive pressures of their own. For instance, the establishment of Irish Water resulted in significant amounts of assets being stripped from the local authorities. Likewise, voluntary housing associations are acquiring the local authority’s precious housing stock, resulting in lost revenue for local authorities. Therefore, in recent times the local authority sector are finding themselves in a more private sector orientated arena. The local authority are at a point in time where they are entering a very competitive environment and tacit knowledge management has not been recognised as a competitive tool thus far. Worryingly, this trend has not been acknowledged within the literature.

5.3 Matrix Organisation

Even though there is no formal or premeditated focus on tacit knowledge in the design of the matrix type organisation there are components which are inherently conducive to the transfer of tacit knowledge.

Firstly, the planned matrix type organisation aims to streamline various processes and procedures and reduce their duplication. This is delivered through an IT based system refer to as ‘SugarCRM’ which is a customer relationship management system. The informants believe this will reduce the need for tacit knowledge transference. ‘A lot of what we can do we can standardise and simplify and make it more efficient. Therefore, that has a knock-on effect for the amount of tacit knowledge that is required. Sometime we overcomplicate what we do’ (D5). This is true to a slight extent because the SugarCRM has mapped out the various processes and procedures right down to infinitesimal tasks, effectively allowing the transference of tacit knowledge (at the explicit end of the scale) to codifiable knowledge. Additionally, it has reduced duplication of processes resulting in a less complicated organisation to navigate through. Secondly, the literature has recognised that significant stress is generated for managers and their subordinates due to role conflict and role ambiguity. The informants in this research believe that roles and responsibilities have been clearly identified within the new matrix type organisation and that there is and will be minimal conflict within the matrix type organisation. ‘We are always going to have internal issues. Reducing the numbers of areas should reduce the chance of conflict. Less divisions less conflict. I think the new structure should help that’ (D2). There is a clear inconsistency with there literature which stems from a number of factors. Namely, the introduction of PMDS in local authorities at national level has allowed the organisation to identify teams and more specifically roles and responsibilities of individual within those teams. Individual and team plans distinctly identify who does what and whom they report to. Additionally, the precipitous loss of staff has left the remaining staff ensuring that work is completed and that team
plans are accomplished. Moreover, the CEO of the organisation ensured that there was a single line of authority and eliminated the duplication of roles that resulted from the amalgamation of the two authorities. This approach has started with directors and is filtering down through the organisation. Thirdly, the physical layout of the matrix type organisation is spread over eight different locations, each location predominately an open plan office environment. The experience of the informants all believe the open plan office environment is beneficial to the successful transference of tacit knowledge within teams. 'By in large the open plan office arrangement is conducive to the sharing of knowledge and information as well as people asking and receiving information. Knocking on the door is a physical obstacle' (D3). This is very much in line with the literature in terms of the concept of ‘socialisation’ and its associated benefits. Interaction and communication among staff members is fundamental to the transference of tacit knowledge within teams. The structure of the matrix type organisation allows for staff to interact and communicate horizontally across the organisation. Finally, outsourcing work is one aspect of the matrix type organisation that is very much linked to people and external factors. The matrix type organisation is configured to allow for the best use of the highly skilled workforce. However, over time the both organisations relied on outsourcing work for different reasons. Specifically to minimise risk and to support the limited numbers of staff in rolling out various projects which are subjected to funding deadlines and schedules. It is widely accepted by the informants that the staff are highly skilled and qualified and this resource is not been managed to maximise the resource. 'What's the point in having all these highly paid technical people, planners, architects, engineers unless the skills they have are being applied.' (D1). By outsourcing work the organisation is effectively losing an opportunity to build and transfer tacit knowledge and represents an inefficient use of a resource. The only benefit of outsourcing work is that new ideas and knowledge can be introduced into the organisation. Nonetheless, this will be very dependent on how the working relationship is structured between the external specialists and the internal staff members.

5.4 People

People are at the core of tacit knowledge transference, after all if there are no people there will be no tacit knowledge. The people element of the Target Operating Model is very closely intertwined with the new matrix type structure at a number of levels. Within the literature organisational culture is identified as a critical factor for successful knowledge transference. For instance, (Barlett & Ghoshai, 1990) cited a line manager articulating “The challenge is not so much to build a matrix structure as it is to create a matrix in the minds of our managers”. There is much literature associated with matrix organisation but little on how people, teams and organisational culture contributes to successful matrix organisations. The empirical findings of this research suggest that teams and the organisational culture are significant actors in the transfer of tacit knowledge within matrix organisations. Furthermore, cultural differences among departments have also been recognised; these stem from different geographical areas the local authorities were once responsible for and the different laws and
regulations each functional department had to adhere to. Additionally, competition for funding and the attraction of businesses created adversarial cultures in both councils.

Both councils have process or role cultures where employees have to follow procedures and regulations and are similar in this context. Furthermore, both organisations had very similar structures which presented their own challenges. For instance, the hierarchical nature of both councils triggered conflict and power struggles among directors as they competed for resources for their own departments. When both councils are examined within the confines of their geographical boundaries there are various cultural differences. As an urban authority Limerick City Council evolved into a public relations orientated authority as it was constantly under the media spotlight and were dealing more with social issues. Limerick County Council was a rural county and tended to stay out of the media spotlight, with less social issues to contend with but more rural issues. For instance, the provision of a high-quality road system which was less public focused and more governmental focused. This resulted in Limerick City Council taking a defensive approach to the delivery of their services in the form of outsourcing work and transferring the ‘risk’ where possible. The matrix type structure will provide a logical structure for both cultures to integrate. A benefit of the structure of the matrix type organisation will remove people from a silo focused environment and allow more effective and efficient use of resources. In this early stage of the amalgamation process there is a high level of adaptability among staff members.

‘People are adaptable and the old structure as we had isn’t adaptable. To get people to move among departments was difficult due to a silo focus. The target operation model will allow the movement of people and will exploit the cultural of adaptability that exists’ (D5).

Additionally, the matrix type organisation has resulted in the reduction of senior staff and less duplication of roles. This triggered a situation where the remaining staff at lower levels were given additional responsibilities.

At a micro cultural level, individuals and teams are very much motivated in sharing their knowledge with one another. There is a high spirit of ‘generosity’ and a fundamental level of trust. There is an intrinsic motivation to share knowledge. For instance, there is a culture of managers bringing their subordinates into meetings to observe and learn. In both councils there are high levels of trust among staff members which is very favourable in tacit knowledge transference. The matrix type organisation will evolve into a task culture and it relies very much on teamwork and the high levels of sharing and trust will bolster how the matrix type organisation can promote tacit knowledge transference.

5.5 External Environment
The external environment in which the local authority operates differentiates the public and private sectors. Moreover, the external environment has an impact on how the matrix type organisation
operates and functions. For instance level of recruitment and the public advertisement of vacant positions within the local authority sector has profound effects on the transfer of tacit knowledge. Private organisation can take a long term strategic approach in training their staff for succession planning while in the public sector this is not the case. The external environment also imposes other restrictions such as pay restrictions and onerous legal responsibilities in relation to the public customers the organisation serves.
Chapter 6: Conclusions and Recommendations

6.1 Conclusion
This paper seeks to enhance understanding of the transference of tacit knowledge at team level within a matrix type organisation. The purpose of this chapter is to summarise the research findings of the paper and make key recommendations going forward.

Firstly, there is a clear acceptance that any loss in knowledge from the organisation will result in serious consequences for the organisation. The findings suggest that there is a lack of awareness of tacit knowledge, particularly its importance and how much tacit knowledge contributes to the whole paradigm of knowledge. The research findings have highlighted the need for a coherent knowledge strategy for the organisation with a particular emphasis on tacit knowledge. Albeit, there are elements of the target operating model that are conducive to tacit knowledge sharing even though not planned for.

Secondly, the empirical findings of this study have indicated that the matrix type structure provides opportunities for the transference of tacit knowledge by supporting teams. The reduction in the number of functional departments will breakdown the silo affect and will improve horizontal communication and interaction between individuals and teams. Additionally, the grouping of similar staff together into operational teams creates community of practices throughout the organisation. Furthermore the physical layout of the open plan offices are favourable in allowing individuals within teams to share their tacit knowledge. From an ICT perspective the implementation of the new SugarCRM system has necessitated the interviewing of substantial number of employees with a purpose of capturing their tacit knowledge and converting it to explicit knowledge to create a detailed process mapping system. However, questions remain unanswered. For instance, how much tacit knowledge within the organisation has been converted to explicit through these means? Can this approach be employed elsewhere within the organisation to codify tacit or implicit knowledge? And how will the organisation manage the tacit knowledge engendered over time in relation to how effectively and efficiently employees can operate the system?

Thirdly, teams within the matrix type organisation consist of individuals and the empirical findings are generally positive in connection with a number of themes. For instance, employees are intrinsically motivated to share their knowledge and there is a high level of trust throughout the organisation. The different cultures which exist at organisational, departmental and team level are now merging. The profound changes that are occurring due to employees moving, working in new ways and in a totally different organisational structure has forced both cultures to change to accommodate the new environment. The findings suggests that the profound changes have resulted in generating a shared vision and common ground for all cultural types. This commonality perspective
has resulted in people working in teams effectively where tacit knowledge transference has taken place.

Next, externality in which the local authority operates affects how teams within the matrix type organisation can share their tacit knowledge. For instance, knowledge strategies such as succession planning are difficult to implement as local authorities have little control over recruitment. However, the empirical findings have shown that the obligatory introduction of the PMDS across all local authorities has resulted in encouraging people to work within teams. Additionally, it has allowed a system of clearly define roles and responsibilities within the new matrix type organisation. Both, very beneficial in sharing tacit knowledge within a team environment.

Finally, in terms of answering the research question; ‘Will the planned matrix type organisation provide opportunities for the transfer of tacit knowledge within the new organisation?’ The answer is yes to a certain extent. There are opportunities as outlined above at team level that will encourage the transfer of tacit knowledge. However, these are not necessarily planned opportunities and a number of recommendations are laid out in the next paragraph that will exploit these opportunities.

6.2 Recommendations

Based on the literature review and the analysis of the findings the following recommendations are made regarding opportunities for the exploitation of opportunities that exist as part of the matrix type organisation:

1. Develop a coherent knowledge management strategy that encompasses knowledge creation, capture, transfer and effective use. A knowledge management strategy is the vehicle for allowing the exploitation of the opportunities identified in this report such as high levels of trust and intrinsic motivation.

2. Leadership support is critical to the implantation of a strategy. This study has demonstrated there is an awareness at senior level of the consequences of significant knowledge loss and there is a willingness there to ensure knowledge is transferred within the organisation.

3. Exploit existing knowledge management resources within the organisation. For instance, there are significant resources assigned to codifying explicit knowledge. Expand the remit of these individuals and teams to include managing and capture of tacit knowledge where possible.

4. Take advantage of the existing communities of practice and replicate more of them across the organisation at less senior levels.
5. There is a high reliance on outsourcing work due to resource scarcity and as an instrument to mitigating risk. A coherent resource management plan should indentify the skills and expertise of existing staff and ensure that strategically important work remains within the organisation. Additionally, direct interaction must be fostered between external consultants and staff from within Limerick City and County Council at individual and team levels.

6.3 Limitations/Directions for Future Research

There are a number of limitations to this study. Firstly, the research is conducted within a local authority sector and cannot be replicated to the private sector. However, there is opportunity to replicate this research in other local authority environments and even other public bodies that intend to operate under a matrix type structure. Secondly, the research was conducted over a relatively short time period which limited the number of interviews which could be conducted. Thus, this research is based on the view and opinions of a limited number of senior managers at a particular point in time. Thirdly, this research has been conducted during the early implementation phase of the new matrix organisation and of the merger between Limerick City and County Councils. Once the organisation becomes more established there may be additional factors to be examined in terms of tacit knowledge transference.

Finally, in terms of future research, this research, due to its nature and time constraints could not take into consideration all aspects of tacit knowledge transference. For instance, a broader ranging study which includes more staff at different levels within the organisation may yield more valuable results. The informants in this research are very much in a position of mentoring and advising more junior staff within the organisation, effectively the giver of knowledge. Exploring the views of staff that at the receiving end may prove very interesting. Furthermore, this research has predominantly view tacit knowledge at team level. Organisational level could also be explored in much more detail. To conclude, this research is only a small step in the whole knowledge management paradigm.
References


Appendix A
Semi-structured Interview

Interviewee Name:

Position:

Date & Time:

Location:

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<thead>
<tr>
<th>Main Question</th>
<th>Sub-Questions</th>
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<tbody>
<tr>
<td>Q1. Can you describe how knowledge is managed within the organisation?</td>
<td>SQ1. What are the consequences of tacit knowledge loss?</td>
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<td>SQ2. In your opinion, why is there no formal knowledge management strategy in place?</td>
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<td>SQ3. From your experience, which is more important, a people focused strategy or an IT based strategy?</td>
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<td>SQ4. In your opinion, whose responsibility is it to implement knowledge management strategy?</td>
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<td>SQ5. What difficulties would you envisage if the organisation was to implement a knowledge management strategy?</td>
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<td>SQ6. What approaches do you feel would reduce or limit knowledge loss within the new organization?</td>
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<td>Q2 What elements of the new organisation will support / inhibit the transfer of tacit knowledge?</td>
<td>SQ 1. Can you describe the culture that exists within the new organization?</td>
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<tr>
<td>Q2.1. People based</td>
<td>SQ2. In your view, how will the existing culture(s) work together in the new matrix organisation?</td>
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<td>SQ3. How do staff share knowledge?</td>
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<td>SQ4. Can you give me an example of when you came across a staff member that didn’t want to share their knowledge? why?</td>
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<tr>
<td></td>
<td>SQ5. Can you give me an example of when you came across a staff member that wanted to share their knowledge? why?</td>
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<td></td>
<td>SQ7. Describe why motivates staff members to share their tacit knowledge?</td>
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<td>SQ8. Do you feel that there will be some level of conflict / power struggles among employees within the new organisation?</td>
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<td>Q2.2. Organisation Based</td>
<td>SQ9. Is there insecurity among managers?</td>
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<td></td>
<td>SQ10. Do you feel people will be given a variety of tasks</td>
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<td>SQ11. Describe the level of trust among staff members in your experience.</td>
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<tr>
<td></td>
<td>SQ1. In what way will the organization provide sufficient time to share knowledge?</td>
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<td>SQ2. How does the new organization structure support direct social interaction among employees?</td>
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<td>SQ3. How does the new organization supporting informal networks?</td>
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<td>SQ4. What are your experiences with the open plan office environment?</td>
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<td>SQ5. How would you compare ITC based technology such as phone/email etc. to face to face contact in the new organisation?</td>
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<td>SQ6. How will the functional directors and operational directors communicate?</td>
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<td>SQ7. What part of the organisation has ‘experts / specialists’ that are charged with doing the same tasks over and over?</td>
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<td>SQ8. Describe the level of ‘silo focus / vertical’ mentality within the new organisation?</td>
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<td>SQ9. Describe the communication flow within the new organisation.</td>
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<td>SQ10. What type of impact has outsourcing work on tacit knowledge transfer?</td>
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<td></td>
<td>SQ11. Describe how roles and responsibilities are defined in the new organisation?</td>
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Q3. Do you want to add anything to the area of knowledge management, particular in relation to the transfer of tacit knowledge.
Appendix B

Past hierarchical type structure of Limerick City and County Councils
Appendix C

New matrix Type Structure