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Strategic Ontological Police Force

Knowledge Management Framework

(SOPFKMf)

By

Khamis ALMuhairi

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I dedicate this to my parents, who raised me,

To my family who stood by me,

To my friends who cared enough to support me,

To my supervisors who guided me;

Without all of you, I couldn't have made it this far.

Acknowledgement

Abstract

This study proposes the implementation of a Strategic Ontological Police Force Knowledge Management Framework with the Dubai Police Force. Recent research in knowledge management has reiterated the potential benefits of effective knowledge management in both public and private sector organisations. Effective knowledge management allows organisations to accrue rewards such as increased productivity, enhanced performance, and competitive advantage. However, the process of transitioning to new models and frameworks of knowledge management can pose a number of difficulties, particularly within organisations that have entrenched managerial practices. This study posits that the implementation of an effective knowledge management strategy must take into account the cultural and administrative specificity of the organisation, and the wider socio-cultural context in which it operates, in order to ensure that an appropriate framework is devised.

The core characteristics of the proposed Knowledge Management framework of the Dubai Police Force must be one where the organisational structure first and foremost permits transparency and an avenue stream for sharing knowledge. This framework must enhance common understanding within the organisation hence ontology is utilised to capture this. New technology must be shared amongst all levels within the organisation and training at all levels is required to be homogenous. The thesis finds that knowledge sharing within the Dubai Police Force to be largely absent with a degree of apathy amongst staff members. Further, the findings show the staff to be unaware of the nature to which knowledge sharing could benefit the police force in the long run. There was also an attitude whereby staff members concentrated on their own particular tasks, goals and achievements and not those of other individuals, which if noted, would be to the benefit of the organisation. The thesis found that the entire infrastructure lacked cooperation at all levels to the detriment of the entire police force. In light of the knowledge framework and contribution, the recommendations serve to consider how people, cultures and technology interact to create a strategy for knowledge transfer within the institution rather than an environment consisting of workers. The knowledge management technologies should ensure a process that includes personal development contributing to the overall organisation and training programmes.

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Chapter One: Introduction

Knowledge management (KM) and the establishment of appropriate KM structures within different organisational contexts, is becoming an increasing concern for managers in both the public and private sectors. Effective KM is shown to bring considerable organisational benefits, including enhanced productivity and organisational performance, whereas deficiencies in knowledge management can lead to inefficiency, ineffective management, and a reduction in competitiveness (Thomas and Keithley, 2002). In the public sector, the adoption of KM strategies is gradually receiving more attention, although generally uptake has lagged behind the private sector in this respect. KM strategies offer, therefore, a key opportunity for public sector organisations to improve performance, productivity and accountability through more efficient systems of management. This study hypothesises that the Dubai Police Force is one such organisation that could considerably benefit from the implementation of a new KM framework. The purpose of the research is to undertake a comprehensive analysis of the current managerial deficiencies in the Dubai Police Force, and to develop a tailored KM framework: the Social Ontological Police Force Knowledge Management Framework (SOPFKMF), which is intended to make material improvements in the administration of the police service in Dubai. It is hoped that this framework may be similarly adapted to other police organisations across the world to improve organisational performance.

1.1. Research Setting

In order to establish an appropriate KM framework for the Dubai Police Force, it is necessary to undertake a comprehensive analysis of the main problems and issues that face the contemporary organisation. The structure of the police service, in addition to the existing organisational structure, can have a profound impact on the selected approach to reforming KM practices within the organisation (O'Dell & Grayson, 1998). The first organised police force in Dubai dates back to June 1956, where a group of just 29 members decided to work together in a locality outside of the centre of Dubai. In the following decade, the police force extended from 29 members to 430, and the headquarters were relocated to a more central location. Throughout its history,

the Dubai Police Force has crafted a reputation as a progressive Arab police service, largely as a result of its recruitment and training practices, but also as a result of its status as an early adopter of new technologies. These factors have contributed to the decision to focus on the Dubai Police Force as a useful case study for the implementation of a new KM strategy (al-Theeb, 2006).

The organisation of the Dubai Police Force is relatively complex, with three main departments and several other smaller departments, all with their own responsibilities. The central office of the Dubai Police Force is that of the Department of Operations which controls all aspects of patrolling and provides support for the public telephone lines. There is also a department of E-Services, which is one of the more recent additions, as part of the government initiative to move operations into an entirely electronic format. Finally, the Department of Criminal Investigations deals with all aspects of criminal investigation, including crime prevention initiatives. Other departments include specific offices that deal with traffic, community services and training new police officers. The existence of all of these departments offers a mechanism for definition of roles and responsibilities. However, it also presents a potential difficulty in the sharing of knowledge between the departments. The Dubai Police Academy is also an important part of the police service and since 1987 has been producing many of the Force's officers who are now in management positions. This academy does, however, offer an opportunity for the police force to train new officers to accept new strategies and principles that are tailored to the needs of the Dubai Police Force (Ryan and Prybutok, 2001).

The introduction of effective KM strategies into the policing sector represents a fundamental shift towards contemporary management techniques. It is also testimony to the need for different management strategies now that the police force has grown from operations that were managed by isolated individuals or small teams, to a more complex organisational structure that necessitates inter-departmental co-operation. Within this context, in order to maintain efficiency, there needs to be a strong KM structure in place, which is accessible to all members of the police force.

A brief consideration of the Dubai Police Force evidences significant organisational issues that prohibit effective management in the contemporary period. It may be observed that there are several different branches and several different individuals

working within the police force, who largely operate in isolation, until there is a formal co-operative structure in place. This results in inefficiencies, as information that is gathered in one department is rarely repurposed in others, even when such knowledge sharing could considerably reduce individual workloads and make the overall operation of the service more efficient (Thomas and Keithley, 2002). Furthermore, just as criminal activity becomes more complex and diversified in the present day, so too must KM structures in the police force become more complex and comprehensive in order to be effective. Although the majority of large organisations maintain some basic KM structures, these are often limited to human resources (HR) issues, which maintain information on personnel and their activities. However, the KM structure and ethos within the police force needs to run much deeper and be more closely focused service delivery within the police force (Paiva et al., 2002). Moreover, in an organisation with such a diverse set of operations and roles, it is impossible to be completely prescriptive in the way that KM is dealt with and, therefore, a more general ontological approach is necessary, so that each department can then work with each other to become an effective whole.

1.2. Aims and Objectives of the Research

The overarching objective of the study is to create a KM framework that will assist the Dubai Police Force in improving and maintaining its service. However, in order to devise a comprehensive KM strategy for the Dubai Police Force, there are several different objectives that must be met. This research takes a strategic ontological approach, rather than necessarily laying down prescriptive rules, but rather aims to create a framework that is adaptable and functional within the operational and budget constraints of the Dubai Police Force, whilst simultaneously leaving enough flexibility to deal with the organisation's evolution and any future changes that may occur (Tynan, 1999).

Therefore, in order to action a plan, it is essential to 'sit within the framework' and establish a clear strategy. This will be a three step process; (i) questionnaires; (ii) Observation and; (iii) interviews. The observation step will involve a physical evaluation by the researcher into the day to day work of the police force, and the questionnaires will establish the personal goals, attitudes and knowledge implication

of the staff members and the interviews will assess the wider knowledge implications of the KM process and participant perspective of the KM systems.

The first objective is to amass a comprehensive understanding of the needs and demands of the modern police force, with reference to the existing structural arrangement within the Dubai Police Force itself. This will then be extended to look at the strategic issues faced by the police force, most notably the profound lack of knowledge sharing across different departments. The ontology of the police force is also taken into consideration, in terms of the general theories that govern its administration, and the core objectives at the heart of the police force. Once this assessment is completed, it will be possible to establish a KM framework, which will be tailored to the needs of the police force in question. This will then need to be tested and validated (testing this can only occur in a practical sense within the Dubai Police Force once the full recommendations have been documented and adopted) with reference to some of the case scenarios that are likely to arise following practical implementation. This will expose any practical issues or deficiencies within the framework and provide time for re-evaluation. Finally, this research will look at the various ways in which this newly established KM framework can be extended throughout the police force, taking into consideration issues of education and training, as well as discussing motivating strategies to ensure that the individual police officers become engaged in this new arrangement. The proposed framework is presented in Figure 1.1 below, and fully articulated in Chapter Five.

The main objective of this case study is to develop a comprehensive new Strategic Ontological Police Force Knowledge Management Framework (SOPFKMF) in the Dubai Police Force. In order to develop a view on how to implement the new KM framework, an in-depth understanding must be reached concerning the needs and demands of the operational framework in the police force. This study adopts a strategic ontological approach in order to create a framework that works, is flexible, can adapt to change, and is within the current budget capabilities, while also adhering to the current aims of the organisation (Tynan, 1999, pp.8-61).

The objectives of this case study are, therefore, as follows:

- To examine the current KM structure in the Dubai police, and a consolidated list of potential avenues for improvement.

- To identify and propose more effective KM methods and approaches, and to explore different avenues of efficient and effective changes in the organization.

- To develop and package potential solutions to the identified problems by developing the SOPFKMF based upon the review of the literature undertaken above

- To utilise the case study research to identify potential obstacles to implementation, and to pre-empt solutions to these problems

- To validate the framework within a real organisation.

- To develop a strategy for testing of the proposed framework, leaving room to accommodate change and development in the organisation and to ensure that the KM practices in the organisation continue to evolve over time

Fig 1.1: SOPFKMF: High Level Framework

This investigation, therefore, encompasses a wide range of aims and objectives. As a result, the analysis will remain highly focused on the particular case in hand, in order to study the issues within a practical context, and limit the parameters of the investigation. However, it will also engage in a discussion of the relevant theoretical and empirical literature relating to KM in order to provide the scholarly context for this research.

1.3. Significance of the Study

The principal aim of this research is to develop a KM framework that will have practical implications for the organisational performance of the Dubai Police Force. The challenges facing the Dubai Police Force are common to a variety of other organisations, particularly in view of its structure and organisation into multiple parallel departments. In order to implement an effective KM strategy, therefore, the framework must be flexible enough to work coherently across multiple departments, in addition to effectively interlinking them. In addition, many organisations face similar difficulties in the implementation of new KM structures, encountering resistance to change within the organisation itself. As noted above, the Dubai Police Force has been classed as one of the most progressive police forces in the region, due to its integration of women and ability to adapt to new technologies. It may be suggested that the Dubai Police Force offers a useful testing ground for practices that may be adopted more generally throughout the region. Finally, service industries, such as the police force, need to consider the ways in which they work, internally, in order to create the kind of framework that encourages the sharing of information, so that the entity can function as a coherent whole, rather than as distinct entities that work alongside one another. The theories and findings from this research will potentially have far-reaching implications to other service-based organisations and, therefore, potentially mark an important contribution to the wider literature concerning KM (Pearson, 1999).

1.4. Research Methodology

This study adopts a case study methodology that facilitates the study of particular phenomena within a real-life context. Concurrent with many case study approaches in management research, it adopts a mixed methods approach to data collection, in order to build a holistic picture of the case and the particular characteristics that affect KM implementation (Patton and Applebaum, 2003). Primarily, a literature review is undertaken to explore different theoretical and practical approaches to KM, and differing conceptions of knowledge and ontology. This will provide the theoretical basis for the formulation of an effective framework to be applied to the Dubai Police Force. The next stage of research will build a comprehensive picture of the current state of the KM practices and organisational structure of the Dubai Police Force, in order to identify key problem areas and to tailor the new framework to the particular issues facing the service. Data collection will be achieved through a survey, delivered to employees across the organisation, followed by a series of structured interviews with key management personnel. Following this, a three-week period of observation will be conducted by the researcher, in order to gather information that will demonstrate the practical functioning of the organisation. These collection processes will form data points that may then be triangulated to form overall conclusions.

1.5. Summary and Structure of the Thesis

This study aims to contribute to the existing KM literature by undertaking an in-depth case study of the organisational practices in the Dubai Police Force. It will contribute practically to the field through the development of a comprehensive KM framework for implementation across the organisation, with potential implications and applicability for other similar organisations seeking to improve their KM practices. The remainder of the thesis will be structured as follows: Chapter Two presents a literature review, in which existing scholarship relating to conceptions of knowledge, ontology and KM is examined. Chapter Three presents the methodology of the study and justifies it in relation to the aims and objectives of the research. Chapter Four presents the results and findings of the primary research. Chapter Five develops a proposed KM framework based on the results of the investigation. Finally, Chapter Six concludes the study and proposes avenues for further research (See Figure 1.2).

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- Conclusion and Summary
- Limitations and Recommendations for Future Research

Fig. 1.2: Structure of Thesis

Below is an illustration showing the different relationships between the various elements of the research investigation and the findings and implications.
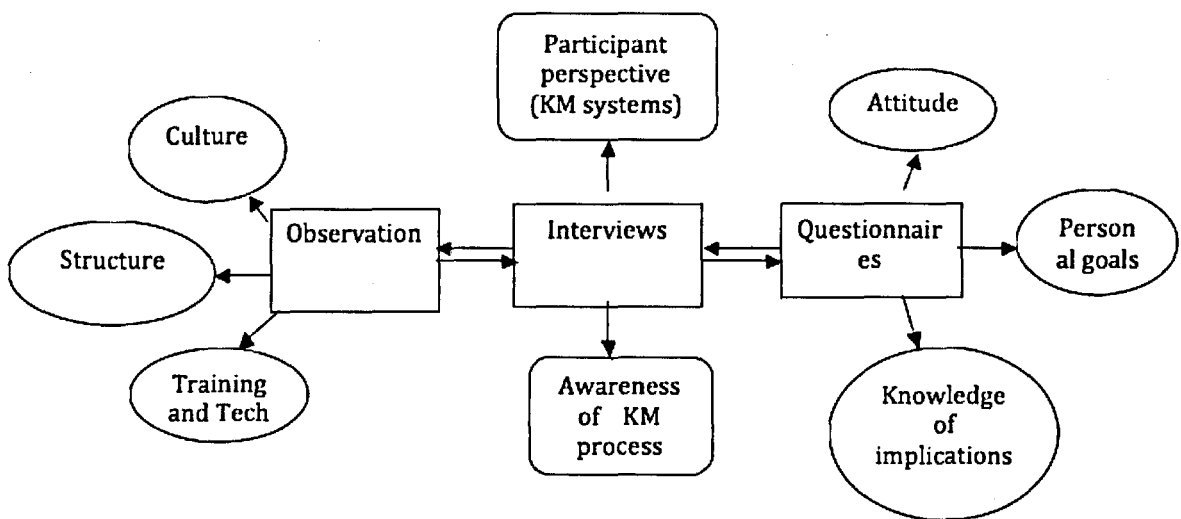
Fig.1.3: Elements of the Reseach Investgation

Chapter Two: Literature Review and Background

This chapter provides a critical review of the academic literature concerned with the definitions, theoretical approaches to, and typologies of, knowledge and knowledge management (KM). This is motivated by the diverse range of issues, both within and affecting the Dubai Police Force, and the need to develop a Strategic Ontological Police Force Knowledge Management Framework (SOPFKMF), as outlined above. In order to formulate an effective SOPFKMF, this study will engage with theoretical and organisational approaches to knowledge and KM, according particular attention to issues relating to KM and quality, culture (both organisational and national), and knowledge transfer (sharing) and application. In addition, it will discuss the facilitators and impediments to knowledge sharing, and the social ontologies that will comprise the foundation of the SOPFKMF. By engaging in an analysis of the various scholarly approaches to knowledge, KM, and ontology, this chapter provides the theoretical basis for this investigation into the Dubai Police Force.

2.1. Knowledge: Definitions, Theoretical Perspectives and Typologies

This section aims to evaluate various conceptions of knowledge, KM, and its typologies, in order to select an appropriate model for the SOPFKMF, and to devise an approach that will help organisations to capitalise on their strengths to achieve their goals. Most theoretical considerations of knowledge and KM make a distinction between two types of knowledge: extrinsic/explicit and intrinsic/tacit.

2.1.1. Explicit Knowledge

Explicit knowledge may be defined as a "form of knowledge which can be transferred through language and mathematical modelling. It is implicitly contained in all kinds of knowledge types: know-what, know-why, know-how, and know-who" (Bratianu & Orzea, 2012: p.16). In other words, explicit knowledge may be understood as an important and clearly presented set of knowledge (Nonaka & Takeuchi, 1995).

McCall et al. (2008) delineate the discrete attributes of explicit/extrinsic knowledge. In its extrinsic form, knowledge denotes organisational knowledge that is codifiable and is routinely found in computer systems, databases, definitions, enterprise repositories, policies, procedures and training course content (McCall et al., 2008). Efficient application of explicit knowledge effectively requires organisations to develop knowledge management systems (KMS) and processes that are easily accessible to users and enable the simple search and acquisition of explicit knowledge (McCall et al., 2008). This easily accessible and shared organisational knowledge enhances organisational performance. Representing explicit knowledge within the organisation is the first part of a process in which knowledge about the organisation (policy, processes, etc.) is transmitted from one employee to another, and is then transformed by the recipient into intrinsic knowledge for individual use (Salisbury & Plass, 2001). From this perspective, categories of knowledge that are required for successful organisational KM may be identified and represented, following the Collaborative Cognition Model (Salisbury and Plass, 2001), itself an extension of Nonaka and Takeuchi's (1995) Knowledge Spiral in Organisations Model (see Figure 2.1).
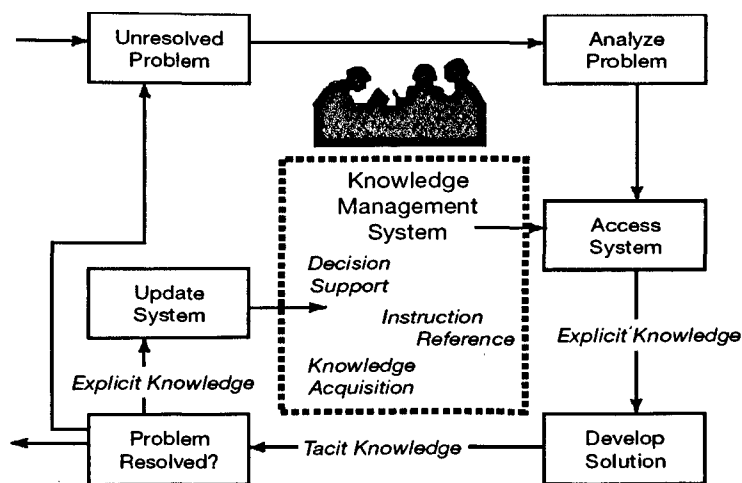
Figure 2.1: Collaborative Cognition Model (Salisbury and Plass ,2001: p. 460)

However, this conceptualisation of explicit knowledge posits that it may be treated as an objective entity that is unconnected to, or unaffected by, subjective perception. Such a view is challenged by Polanyi (1969), amongst others, who assert that extrinsic knowledge is essentially subjective and therefore, despite organisational

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assumptions and aspirations, all types of knowledge cannot necessarily and objectively be transmuted and translated into explicit knowledge.

2.1.2. Intrinsic Knowledge

Intrinsic knowledge is often referred to as tacit knowledge. Polanyi's (1969) oft-cited treatise on tacit knowledge portrays it as a highly personalised and deep-rooted form of understanding emanating from the contextual experiences of people within organisations. As inferred above, Salisbury & Plass (2001) adopt the opposite position by asserting that the entirety of explicit knowledge is transformable and translatable into intrinsic knowledge for use at a later time. Defining tacit knowledge as "personal knowledge embedded in individual experience", Srdoc et al. (2005: p. 283) state that it is composed of immaterial attributes including individual beliefs and values. It is, in their view, tacit knowledge that defines organisations and distinguishes them from others.

Tacit and explicit knowledge are intrinsically related to one another, and are important to organisations pursuing KM as they contribute to improved performance and quality. However, given its highly individualised, personalised and intangible nature, tacit knowledge is more difficult to identify, direct and manage (Srdoc et al., 2005). Relations between employees of the same or different hierarchical levels may also contribute to obstacles in the management and transmission of tacit knowledge. Such difficulties may arise from particular employees' reticence in sharing their tacit knowledge with others, which may be compounded in situations where the organisation does not foster learning, or if there is an organisational culture in which there is mistrust. However, the successful identification, capture, transmission, analysis, utilisation and storage of tacit knowledge is critical to enhancing organisational performance, and many studies have found that this contributes to private sector firms achieving a competitive advantage (cf. Polanyi, 1969; Salisbury and Plass, 2001; Srdoc et al., 2005).

Galia (2008) examines the interrelationships between intrinsic and extrinsic elements involved in knowledge management (such as knowledge capture, creation and diffusion), including organisational approaches to employee motivation and their

causality vis-à-vis knowledge sharing. Whilst there is diversity between organisations in terms of organisational activities, size, technology use and attitude towards innovation, the main distinction in terms of the level of quality of intrinsic knowledge sharing is in their motivational approaches (Galia, 2008). Distinguishing three motivational approaches exerting causality on knowledge sharing (traditional, those adopting personnel approaches to motivation, and learning organisations), Galia states that the approach eliciting the best results in terms of the transfer of intrinsic to extrinsic knowledge are those used by learning organisations utilising "both interrelated intrinsic and extrinsic motivations as suggested by the Self-Determination Theory and also by the Cognitive Evaluation Theory in which feelings of competence and autonomy are important for intrinsic motivation" (Galia, 2008: p. 56). He concludes that management choice of motivation system has a tangible, important and constructive impact on organisational knowledge sharing from intrinsic to extrinsic knowledge, and that this impact is far greater than small adaptations in individual behaviours (Galia, 2008). The research highlights the inherent synergy between KM, organisational motivation approach, and intrinsic knowledge sharing. The study therefore supports the notion both intrinsic and extrinsic motivation practices must be taken into account concurrently, in order to optimise performance (Galia, 2008, p. 56). Furthermore, Matthews affirms the significance of KM to organisational performance, suggesting that "knowledge, as the postulation and practice of new relations and as an outcome of organizational processes, provides the greatest leverage for firms to survive, compete, and conquer greater heights in the world of business" (2012: p. 73).

2.1.3. Knowledge: Definitional Approaches

Definitions of knowledge are culturally embedded and differ across societies. Individual organisations may adopt particular approaches to knowledge management and motivation that profoundly impacts upon the level, depth and quality of tacit knowledge sharing. However, characteristics of the specific national culture also impact on how knowledge is viewed and treated. Nonaka and Takeuchi (1995), for example, highlight visible divergences in the ways in which individuals and organisations from different cultures conceive of and approach knowledge. This has

increasing relevance for organisations operating in a globalised world, in which spatial and linguistic barriers are being broken down by new technologies, and organisations operate with others in a highly interconnected way. Operating within this globalised and interconnected environment, the Dubai Police Force should be cognisant of, and responsive to, cultural diversity and its potential implications for the transfer of tacit to explicit knowledge, when developing SOPFKMF.

Focusing on the plurality of cultural approaches to knowledge, Nonaka and Takeuchi (1995) claim Japanese firms and those working within them conceive of knowledge as being predominantly tacit and therefore difficult to express. This, they argue, is the polar opposite of Western cultures that are inclined to place greater emphasis on the explicit characteristics of knowledge, such as numbers and statistics (Nonaka and Takeuchi, 1995). This explicit knowledge disposition means that Western organisations tend to maintain the belief that organisational knowledge is relatively straightforward to capture and disseminate. This has significance for this study of the Dubai Police Force and its knowledge management needs, due to the significant influence of Western organisations and business in the region. Dubai has and is continuing to undergo significant economic and educational reforms as it continues its ascendency in the global economic and political order. These changes are taking place within a cultural and religious context defined and guided by Islamic principles and practices. As a result, culturally derived attitudes towards tacit or explicit knowledge may differ between local organisations, such as the Dubai Police Force, and Western organisations, that are the subject of most academic research. In order to continue to develop, Dubai's major institutions, such as the police force, must engage in collaborative working relationships with comparable organisations in different parts of the world, including those from the United States and Europe. It is imperative therefore, that organisations like the Dubai Police Force are cognisant of the cultural specificity of the nation's (and maybe the region's) knowledge conceptualization and operationalization so that they are best placed to design, develop and deploy the most apposite KMS and processes.

In reviewing literature on the two primary types of knowledge (tacit/intrinsic and explicit/extrinsic), it is important to consider the continuing theoretical discourse about the relationship between, and importance of, tacit and explicit knowledge. Knowledge has an emergent quality and is representative of the filtrates of human

thought; consequently successful KMS design and implementation should be guided by knowledge in its emergent form (McDermott, 1999, cited in Thompson and Walsham, 2004). Organisations, when considering, devising, implementing and/or evaluating KM, often endeavour to sidestep Polanyi's assertions regarding the subjective nature of tacit knowledge, which may have expensive consequences for the organisation. Furthermore, this can also lead to considerable difficulties for intra-organisational interaction, as poorly conceived KM systems can eradicate existing protocols, cultural norms and infrastructure, to be replaced with a improperly matched new KM system (Thompson and Walsham, 2004, p. 726). In endorsing Polanyi's (1969) thesis of the subjective nature of tacit knowledge and its salience in the creation of human understanding, the importance of social ontology in relation to efficient and effective, performance and quality enhancing KM is foregrounded.

In their influential work on organisational knowledge, Davenport and Prusak (1998) assert that knowledge is a multifaceted concept emanating from the individuals with organizations. Foss and Michailova (2009) state that as a conceptual construct, knowledge is complicated, polygonal and multifaceted, and when considered in relation to its management, has spawned a broadly based and extensive discourse. Approaching knowledge from a philosophical perspective and examining its inherent complexity, Klein (2012) characterises it as being analogous to a well whose depths can never be plumbed. Klein asserts that "culture is the knowledge we practice, and it is characterized especially in the interpretation and judgment facets of knowledge, of which there are always three: information, interpretation, and judgment", drawing on the work of knowledge theorists such as Adam Smith, Friedrich Hayek and Michael Polyani (2011, p. 283). Knowledge is contiguous and subjective and interpretations not only vary, they can do so instantaneously.

2.1.4. Theoretical Approaches to Knowledge

Bell's definition of knowledge conceptualises it as "a set of organized statements of facts or ideas, presenting a reasoned judgment or an experimental result, which is transmitted to others through some communication medium in some systematic form" (Bell, 1973, quoted in Thompson and Walsham, 2004: p. 725). Bell's definition of knowledge implies particular elements, including a codified group, rational or

investigational decision-making, and systemic diffusion, and therefore provides the basis for knowledge models and conceptualisations that have informed KM theory, theory development and practice. An example of this is Nonaka's (1991) 'knowledge spiral' that explores the dynamic interrelationship between tacit knowledge and explicit knowledge (see Figure 2.2).
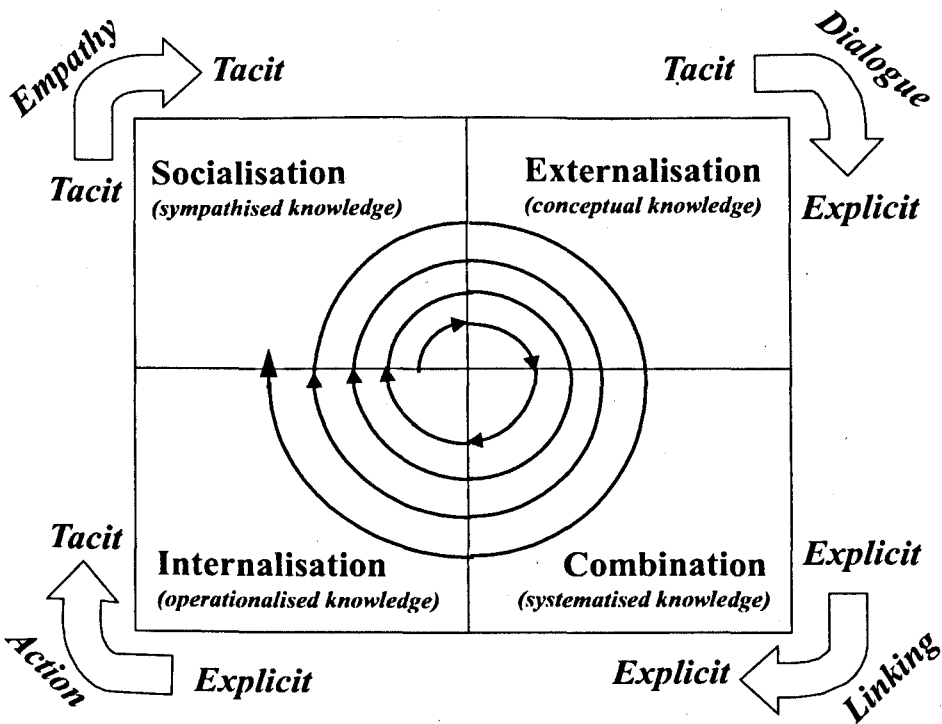
Figure 2.2: Nonaka's Knowledge Spiral

There is widespread agreement in the literature that organisations benefit from the sharing, use and storing of knowledge in both its tacit and explicit forms. To this end, Nonaka's (1991) illustrative and theoretical description of the 'knowledge spiral' is particularly pertinent. Figure 2.2 demonstrates the integrated and mutually producing four-stage process involved in the dynamic relationship between tacit and explicit knowledge, ultimately resulting in knowledge being transformed in both directions. Nevertheless, it is far from conclusive that externalisation, socialisation, combination and internalisation satisfactorily explain the means though which individuals and organisations work collaboratively in order to create and make use of knowledge. This theoretical and practical concern notwithstanding, the Nonaka (1991) knowledge spiral model has exerted considerable influence on knowledge theory, particularly in relation to its management. Thompson and Walsham provide an illustrative example of this pervasive influence, contesting that Nonaka's perspective that all knowledge as

objects are able to traverse these different states, and suggesting that there is a prevailing consensus that knowledge management systems ought to externalise tacit knowledge and render it manageable alongside explicit knowledge (2004, p. 726). Moreover, Thompson and Walsham extend Nonaka's (1991) knowledge spiral model, by situating tacit knowledge within its own multidimensional context that facilitates its externalisation by organisations (see Figure 2.3).
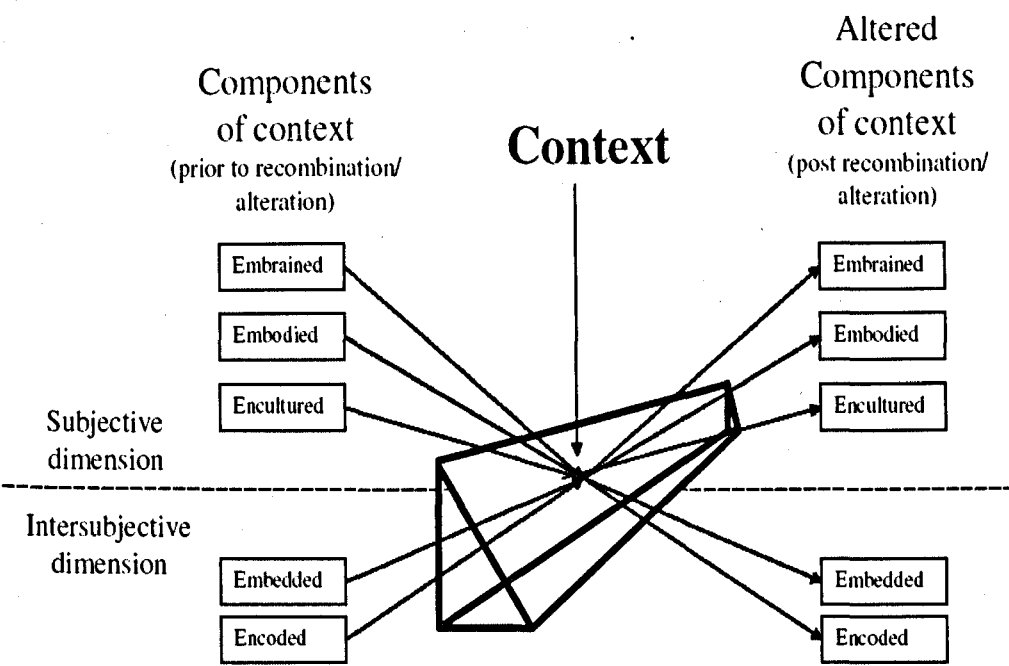
Figure 2.3: Historical, Contextual Components and Context Interrelations (Thompson and Walsham, 2004, p. 742).

This study, which is concerned with the formulation of a Strategic Ontological Police Force Knowledge Management Framework (SOPFKMF) for the use by the Dubai Police Force, must, by necessity, be aware of, and direct focus towards, the immaterial features within KM. Moreover, the research has to be both cognisant of and, to some degree, presuppose that organisations' ability to maximise both tacit and explicit knowledge is premised on their comprehension of the nuanced interplay not only between the two knowledge types, but also between knowledge and identity in their individual and collective configurations. Technology is not sufficiently adequate to recognise, embrace and mitigate all types of knowledge that are replete with inherent inconsistencies and contradictions because the technologies are concentrated on one central problem: namely, that objective knowledge is always inherently subjective in the mind of the person who produces it, is always relational and is

therefore difficult to render accessible at an individual or organisational level (Thompson & Walsham (2004, p. 726). This theoretical perspective aligns with the notion that explicit knowledge is an inherently contradictory idea: rather, without subjective, human meaning, any representation of knowledge becomes meaningless (Polanyi, 1969, p. 195).

According to Nonaka and Takeuchi, "knowledge is created and expanded through social interaction between tacit knowledge and explicit knowledge" (1995, p.61). They base this model on four different modes: *socialization* (transfer of tacit knowledge from one individual to another); *externalization* (conversion of tacit knowledge takes place into explicit knowledge); *combination* (new knowledge is created using existing knowledge), and *internalization* (explicit knowledge converts into tacit knowledge) (see Figure 2.4). Knowledge can be converted from one form to the other (explicit to tacit and vice versa) and can be transferred from one person to another (Nonaka & Takeuchi, 1995). The model's upper trajectories illustrate that knowledge shared between individuals has the potential to spread to and throughout groups, organizations, networks, and societies. Nonaka and Takeuchi's (1995) conceptual representation of knowledge through their knowledge creation model, and the operationalization of knowledge, are fundamental in the formulation of KM strategies aimed at achieving competitive advantage (see Figure 2.4). This view is encapsulated thus:

> From the viewpoint of organizational knowledge creation, the essence of strategy lies in developing the organizational capability to acquire, create, accumulate, and exploit knowledge. The most critical element of corporate strategy is to conceptualize a vision about what kind of knowledge should be developed and to operationalize it into a management system for implementation (Nonaka & Takeuchi, 1995, p. 74).
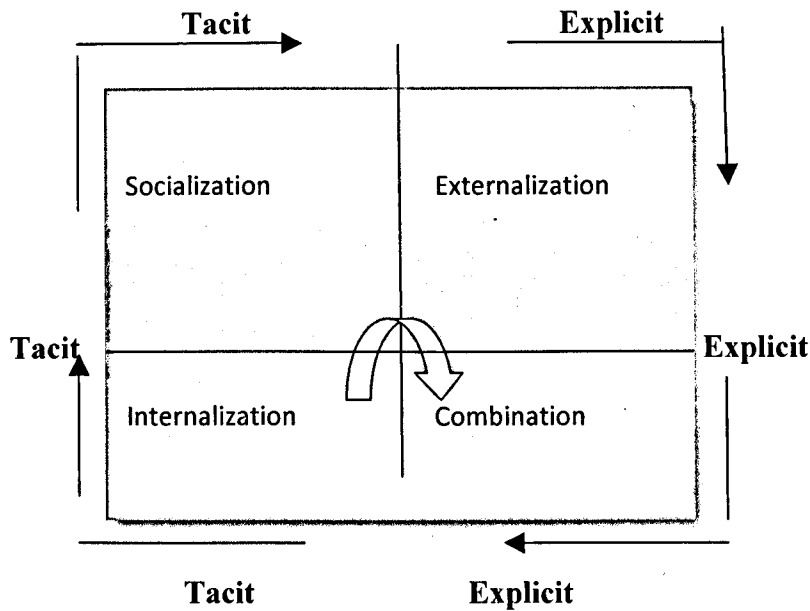
Figure 2.4: Nonaka and Takeuchi's (SECI) Model of Tacit and Explicit Knowledge

Nonaka and Takeuchi (1995) assume knowledge can be divided rather commoditised into different objects, can be represented in form of numbers, and can be converted from tacit to explicit and vice versa. They also assume that internal and external factors are predictable, as the necessary knowledge of these changing factors is available or can be made available to be commoditised, quantified, divided, and changed from one from to another, through a continuous process of knowledge creation by the conversion of knowledge into different forms. Knowledge of the context of action can be known even after a particular action has been performed. In fact, throughout the whole discussion of the SECI model, Nonaka and Takeuchi (1995) assume that all actions are planned or can be planned, due to the fact that knowledge about exogenous factors can be made available according to the model. This perspective, however, is limited because it assumes that a firm might be capable of predicting major exogenous change.

In lieu of these assumptions, the question arises as to whether it is possible to discuss and treat knowledge in such a simplistic way. This categorization is over-simplified as it represents knowledge as comprising objective elements. Therefore, this study argues that the model rests on a number of questionable assumptions, including the categorization of knowledge as explicit and implicit, and the notion that knowledge is discrete and can be commoditised and quantified.

Further, Tsoukas (2002) states that Nonaka and Takeuchi's (1995) interpretation of the separation of tacit from explicit knowledge, and then conversion of tacit knowledge into explicit, are erroneous, as knowledge is not discrete, is dependent on focus, and every tacit knowledge is the necessary component of all knowledge. Therefore, tacit and explicit knowledge cannot be separated. In so doing, the essential ineffability of tacit knowledge is ignored. According to Tsoukas, Nonuka and Takeuchi's conception of tacit knowledge as knowledge 'awaiting' conversion or operationalization has been widely absorbed within management studies (2002, p. 15). However, he further argues that, this approach is fundamentally flawed, and result in a reduction of the 'true' nature of tacit knowledge. Rather than conceived of explicit and tacit knowledge as occupying polar ends of a continuous spectrum, they should be considered as two sides of the same coin: any explicit knowledge involves an element of tacit knowledge:

Tacit knowledge consists of a set of particulars of which we are subsidiarily aware as we focus on something else. Tacit knowing is vectorial: we know that by relying on our awareness of them for attending to something else. Since subsidiaries exist as such by bearing on the focus to which we are attending from them, they cannot be separated from the focus and examined independently, for if it is done, its meanings will be lost. While we can certainly focus on particulars, we cannot do so in the context of action in which we are subsidiarily aware of them. Moreover, by focusing on particulars after a particular action has been performed, we are not focusing on them as they bear on the original focus of action, for their meaning is necessarily derived from their connection to that focus. When we focus on particulars we do so in a new context of action which itself is underlain by a new set of subsidiary particulars. Thus the idea that somehow one can focus on a set of particulars and convert them into explicit knowledge is unsustainable (Tsoukas, 2002, p. 15).

Although Tsoukas' (2002) assertions are sound, including the notion that organisations should not concentrate on separating tacit from explicit knowledge, and that all actions cannot be planned, issue has to be taken with his claims that knowledge cannot be captured, translated or converted. This study follows a pragmatic perspective, suggesting that, more or less, tacit knowledge can be made explicit, captured, translated and transferred in many case. It is unwise for organizations to focus on KM approaches aimed at the separation of tacit from explicit knowledge as a basis for strategy development, as the knowledge of all the factors in the organisation's internal and external environments, including economic, legal, political, social and so forth, cannot be captured, translated, and transferred.

2.1.5. Typologies of Knowledge

Tiwana (2012) investigated whether discriminating between focusing on different types of knowledge (business, technical and peripheral) at any given time can contribute to improved organisational performance. The author "developed the idea that alignment between such knowledge and project novelty must be nuanced and discriminating, in that the benefits of each type of peripheral knowledge depend on whether the novelty associated with a project is in the application itself or in the processes used to develop it" (Tiwana, 2012, p. 15). Although the study addressed IT companies and projects, the idea of discriminating in terms of alignment of knowledge focus can produce superior organisational performance, which is applicable to the current research concerning the Dubai Police Force.

Gardner et al. tested the hypothesis that motivating employees working within a team by exerting performance tension can provide both positive and negative effects, by simultaneously improving team motivation and also triggering process losses (2012: p. 1). The research revealed a performance-pressure paradox wherein teams require knowledge sharing to raise performance and quality levels, and to do so would benefit from learning from the expertise of other, more experienced teams. However, instead of seeking out the knowledge they need, and perhaps are motivated to gain, in order to achieve their professional goals, they tended to unconsciously revert to solutions that were known and considered low-risk (Gardner et al., 2012, p. 37).

Bratianu and Orzea (2012) developed the Analytic Hierarchy Process (AHP) as a means of investigating knowledge strategies that epitomise innovative and influential stratagems directed towards attaining improved performance. They define knowledge strategies as being based upon the organisation's resources and dynamics of knowledge, including processes such as knowledge creation, acquisition, sharing, transfer, diffusion and loss (Bratianu & Orzea, 2012: p. 7). Aimed at identifying dominant, value creating features between dyadic pairings that have standardised features, the AHP enables a more considered approach to the management decision-making process. The three-tiered AHP hierarchy/framework comprises three distinct strategies: one for increasing knowledge creation, one for increasing knowledge acquisition and one for reducing loss of knowledge (Bratianu & Orzea, 2012: p. 7). The AHP framework facilitates the quantification of employees' perceptions of organisational knowledge level.

Matthews (2012) proposes a socio-cognitive approach to understanding and managing knowledge within an organisational context. Knowledge comprehension requires investigating knowledge from multiple positions. This understanding includes analysis of the complicated ways in which information and various learning styles are cognitively processed. Knowledge creation processes may be significantly affected by both cognitive processes and behavioural organisational processes, rendering it a complex activity in the hands of key figures within the organisation (Matthews, 2012: p. 84). Organisations have different learning modes and the accrued benefits are dependent on the approach to knowledge creation adopted.

2.2. Knowledge Management

Knowledge management (KM), as both concept and discursive practice, is still in relative infancy, and is considered important for all levels of management (Kovacevic & Djurickovic, 2011). The development, implementation and management of robust KM strategies and systems facilitate the development of organisational knowledge and promote innovation (Kovacevic & Djurickovic, 2011; Kulkami et al., 2006). Knowledge, as previously mentioned, has a multitude of conceptual definitions and approaches. For example, according to Kulkami et al. "knowledge has been described as information combined with experience, context, interpretation, and reflection",

whilst knowledge management is represented "as the process by which organizations leverage and extract value from their intellectual or knowledge assets" (2006: p. 310). This endorses the perspective that KM contributes to efficient and effective organisational strategy and decision making (King et al., 2002).

Knowledge management is a discipline and practice that came into being in the middle of the last decade of the previous century. There was a discernible trend within the definitional approaches of the subject's earliest theorists to express KM and its constituent processes in terms of the measurement of, according to Polanyi-esque social ontological and Eastern perspectives, are incorporeal elements, namely, those of a subjective, tacit nature. One such definition characterises KM as the "codification of experience, know-how and localized tacit knowledge" (Cohender et al., 1999: p. 239). Similarly, in a theoretical deliberation on the knowledge management processes, Crossan et al. suggest that said processes have the effect of "intuiting, interpreting, integrating, and concerning tacit knowledge, it is based on employees' experiences and resides within them and therefore, such definitions of KM and its processes may well be inaccurate and inapplicable as they are focused on applying rigid measurements to the amorphous workings of the human mind.

One of the benefits arising from resourceful and effectual knowledge management is the occasioning of new technology that enhances both organisational functioning and value. In a private sector organisation such improvements may result in increased shareholder value as profits rise, whereas in public sector bodies such enhancements may be seen, for example, in improved administration and service delivery. Holsapple and Singh (2000) have addressed the growing importance and organisational significance of electronic business since the beginning of the century, representing it as a cross-sector and cross-discipline cutting edge technology that will ultimately become ubiquitous in most areas of management (Holsapple & Singh, 2000: p. 151). The design and provision of resourceful and successful primary and secondary KM activities contribute to increases in organisational value. Extending this research, Allard and Holsapple (2002) also advance the proposition that KM is indispensable for organisational efficiency. They situate knowledge as global resource that is reliant on the complex relationship between technology and human intellect, meaning that it functions as both a product and a resource within many organisations (Allard & Holsapple, 2002, p. 19). In doing so, Allard and Holsapple (2002) affirm Holsapple

and Singh's (2000) supposition that knowledge management is one of the principal e-business drivers.

Investigating knowledge management ontology amongst researchers and practitioners internationally, Holsapple and Joshi (2004) remains one of the most widely cited academic works on KM ontology. Holsapple and Joshi (2004) introduce the concept of Knowledge Management Episodes (KMEs). KMEs are comprised of a range of integrated and symbiotic processes emanating from the recognition of a knowledge requirement through to need fulfilment (see Figure 2.5). The ontological contextualisation of the KME consists of knowledge resources required for positive and productive KM, including infrastructure, knowledge handling functions, knowledge management effects and strategy. Knowledge acquisition, selection and application are included amongst the knowledge handling functions, whilst environmental, managerial and resource factors are contained within the KM affects. According to Holsapple and Joshi (2004) the interplay of all these activities is necessary for successful KM. This is confirmed by Thompson and Walsham (2004), who support Holsapple's and Joshi's (2004) contention that the dynamic interaction of these actions are prerequisites of KM success, adding that knowledge management systems and processes are likely to be limited if sufficient focus is not directed towards (ontological) contextualisation.
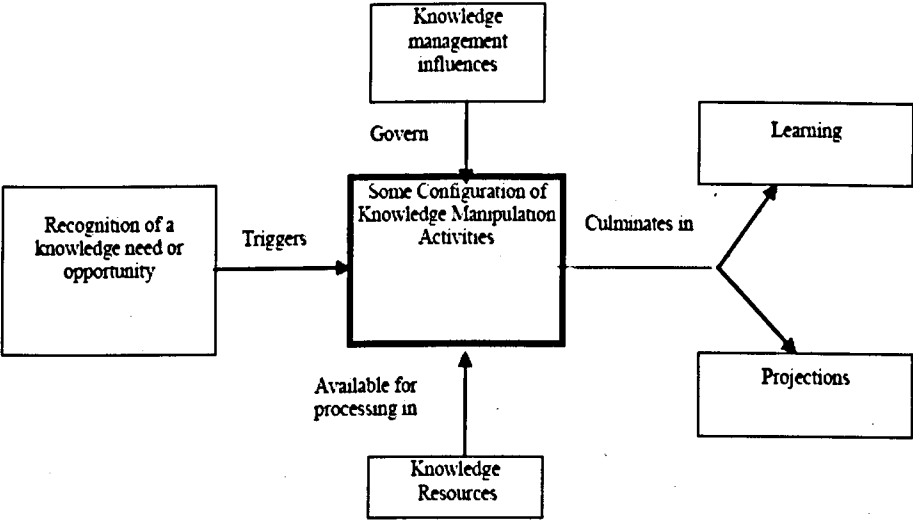
Figure 2.5: Architecture of a Knowledge Management Episode (Holsapple and Joshi, 2004: p. 599)

Using the Fluor Corporation as the basis for a case study, Thomas and Keithley (2002) theorise, in common with other commentators, that efficient and effective knowledge management is a conduit for value-adding organisational performance. They reported that the corporation's adoption of KM resulted in an organisation-wide transformation, including better recruitment and training strategies that enabled employees to achieve high levels of business and technical skills much earlier in their careers (Thomas & Keithley, 2002: p. 3). In the course of reviewing the KM literature, Small and Sage (2005) identify four knowledge management models and frameworks: experimental, logical, mathematical/computational and theoretical. Finally, and applicable in relation to the present research, Parikh (2001) postulates that knowledge management is a byzantine practice and as such, should be entrenched within the organisational complex of activities: a reflection of corporate culture instead of being regarded as an activity that can occur independently.

2.2.1. Knowledge Management and Quality

Knowledge management is in the process of superseding total quality management (TQM) within organisations as management seeks to enhance performance and quality (Adamson, 2005; Steward & Waddell, 2008). Indeed, some theorists assert that organisational strategies directed towards the maintenance and improvement of quality are best located within and directed by KM processes and systems. Steward and Waddell (2008) reinforce their assertion that KM is intrinsically linked to TQM. Writing about KM as a contributor to competitive advantage, in the context of a private sector firm, the authors contend that KM consists of the development of processes that improve relations between the organisation and the customer, by providing better ways to understand consumer needs (Steward & Waddell, 2008: p. 994). This insight is of considerable relevance to the management and organizational behaviour of public sector institutions such as the Dubai Police Force as it directly addresses organisational quality systems' design, development and implementation. Quality approaches to KM resulting in the development of knowledge management systems (KMS) constitute a strategy for quality improvements, developed on the basis of consumer requirements and sufficiently conceptualised and disseminated throughout the organisation to ensure that every individual has a clear understanding

of the requirement to meet these quality standards (Steward & Waddell, 2008: p. 995). As a consequence, the KM mediated quality system facilitates the codification of tacit knowledge thus enabling organisational clarification and definition of quality, which in turn informs and guides organisational control of data, information and knowledge, together with nurturing a shared understanding of 'how things are done around here' (Steward & Waddell, 2008). In emphasising the significance of KM to organisational efficiency and success, Kovacevic & Djurickovic (2011) draw particular attention to the importance of organisational leaders and managers being cognisant and supportive of the human function in operationalizing knowledge sharing.

The present study states that tacit knowledge about various practices and factors can be captured, translated, transferred and converted from one form to another. This means that planned actions are possible in certain situations. However, in other circumstances it is difficult to make and carry out planned actions. What is important is to analyse the practices and improve them, whenever possible, by changing the KM approach from abstraction to practice. Further, Schatzki's (2005) theory presents a detailed description of social life by conceptualizing the social as nets of practice-order bundles enabling the researcher to witness social life with different perspectives and from different dimensions. Schatzki's (2005) approach through the notion of 'order' focuses the roles of material and non-human actors. Human actors with due attention to material elements are perceived as active agents rather than passive elements in constructing social life. In this view, social life consists of bundles of practices-orders that bond to one other shaping extensive meshes and nets encompassing the whole human world.

Given the link between work and organizations, the present study concludes that Schatzki's (2005) theory of practice has greater potential to advance understanding of KM in an organizational context. It discusses the role of human and material in practice in relation to all possible complexities in the performance of an activity. In explaining the context (the site of the social), Schatzki (2005) states that "the context as part of which human coexistence inherently transpires as an overall mesh of practices and orders, itself organised as nexus of practice-order bundles, nets, and other complexes. This mesh also carried along and altered by streams of human and nonhuman doings, though human activities enjoy primary responsibility for

maintaining and transforming its forms". Employing the word 'bundles', he also foregrounds a focus on empirical investigation rather than setting and depending on predetermined rules to analyse the factors involved in the nexus of ordering and practice. Thus, practice should be established on fzki's (2005) theory of practice keeping in view the breadth of its analysis, and the ways it suggests to deal with the human and non-human factors to examine the practice arrangement-bundles, with human and material elements, such as IT, and other tools equipment used in KM. Finally, investigating the other nets in the practice arrangement-bundles such as commonalities, rules, beliefs, chains of actions including harmonious, competitive and/or conflicting interactions, will serve to enhance understanding of the tacit nature of KM practice. It can be argued, however, that practice provides a subsidiary awareness as it is inarticulate (Yanow & Tsoukas, 2009).

2.2.2. Knowledge Management and Organisational Culture

There has been a significant academic focus on the salience of innovation in order to engender competitiveness. There has been considerably less attention directed towards the utilisation of knowledge to enhance innovation and innovativeness, which is a problem common to many organisations. Adam et al. (2008) highlight the significance of an organisation's culture and structure, together with efficient and effective knowledge management in fostering and facilitating successful innovation. In the same vein, Fong and Kwok (2009) posit that on its own, technology is insufficient to achieve knowledge sharing. Therefore, to achieve the goal of employee motivation leading to employees creating, sharing and implementing acquired/shared knowledge, it is necessary to establish and maintain an organisational culture conducive to the interactional acquisition, diffusion and application of knowledge. Chinowsky and Corrillo (2007) highlight the nexus between efficient and effective knowledge management and learning organisations, whilst also situating organisational culture as a prerequisite for both. Premised on the STEPS model, Chinowsky and Corrillo (2007) maintain that KM serves as a connection between organisational strategy and the development of a learning organisation (see Figure 2.6).

STEPS Model

Continuation	
Sustainability	
Progressive	
Expansion	
Take-Off	
Start-Up	
Preparation	

LO Maturity Model

Continuing
Maturing
Championing
Integrating
Transforming
Establishing
Preparing

KM-LO Link

Organization / Project
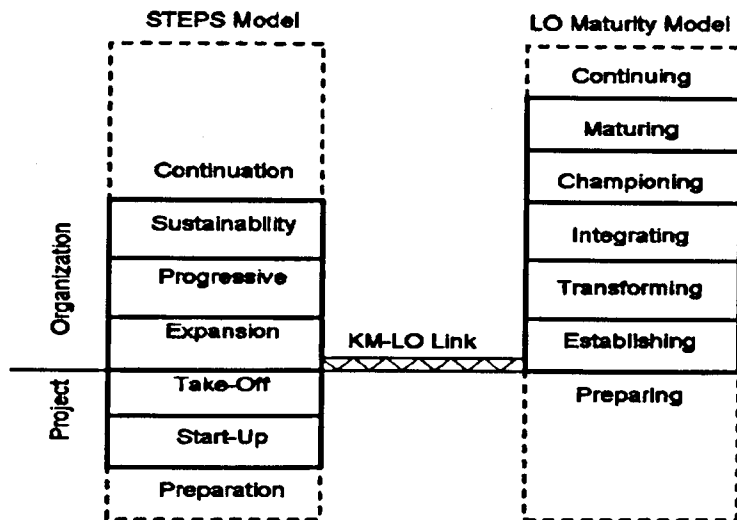
Figure 2.6: Bridge between KM and Learning Organisation Model (Chinowsky and Carillo, 2007, p. 128)

Russanow (2007), in an investigation of knowledge management's value to law firms, reiterates the position that organisational culture is positively associated with successful KM. HR Focus (2007) is even more effusive in proclaiming that when they operate in unison, organisational culture and knowledge sharing can conflate to become *the* determining factor in an organisation's success or otherwise. Taking a contrary position to the advocates of learning and intrinsically and extrinsically oriented motivation approaches and organisational cultures for the realisation of efficacious KM, King (2006) reasons that in some instances, organisations espousing and practising traditional, so called 'hard' management techniques may achieve greater levels of efficiency and higher performance levels than those 'modern' organisations embracing softer, learning and development and knowledge-sharing oriented methodologies in the development and maintenance of their organisational culture.

2.3. Knowledge Transfer (Sharing) and Application

Nag and Gioia (2012) theorise that knowledge is a strategic resource. In the course of their theoretical treatise the authors developed a grounded model that described relationships between three primary elements: 1) executive knowledge schemes (i.e.,

senior management understanding and conceptualisation of knowledge, 2) methods adopted by executive to discover or search for knowledge, and 3) the way in which this knowledge is transformed into actionable information that can lead to market advantage (Nag & Gioia, 2012, p. 421). Although competitive advantage is not a consideration for the Dubai Police Force, the transformation of everyday knowledge into particularised and beneficial knowledge, as proposed by Nag and Gioia (2012) is apposite, and merits further consideration. The model is premised on the concept and practice of management knowledge structures or schemas, which are tacit knowledge frameworks enabling individuals and their organizations to structure and imbue information with meaning that is variously situational, equivocal and unclear. Such schemas can be indispensible facilities in knowledge searching, and sense-making, and used as a strategic resource. Nag and Gioia's (2012) research reveals that managers operating within similar external environments and circumstances differ markedly in the ways in which they identify, look for and utilize knowledge in distinctive and particularized ways in order to navigate the different strategic terrains they encounter. The grounded model emerging out of the research contains three primary concepts. First, *executive knowledge schemes* relate to the varying belief structures held by different managers about the value of the nature and source of knowledge, and represent each organization's senior managements interpretative conceptualization of knowledge as a strategic resource. Second, *executive scanning* relates to the methods employed in searching and/or acquiring knowledge. Two distinct patterns of executive scanning were detected: *scanning intensity* – the extent of the time spent searching for information within a particular domain and, *scanning proactiveness* – the type of resourcefulness displayed in accessing knowledge. Third, *uncommon knowledge use* relates to the distinctive application of knowledge to realise particularized outcomes. Two forms of uncommon knowledge use were noted: the first was knowledge adaptation, which involved mobilising knowledge in order to develop solutions to specific problems, and knowledge augmentation, which involved using knowledge to reflect upon problems or issues in order to develop future solutions (Nag & Gioia, 2012, p. 428). This model offers a range of concepts that can assist managers in finding ways of searching for, acquiring and utilizing knowledge that will help them realize organizational knowledge objectives from using common knowledge.

Bautista-Frias et al. (2012) address the issue of using 'knowledge maps' to convert individual employees tacit knowledge into organizationally relevant and useful explicit knowledge within a higher education institution. They pointing to the knowledge inherent to each employee about what the organization must do in order to function competently and contend that each employee also functions, to some degree, as a strategic manager because of the engagement in intellectual activities concerned with learning and development, advancing innovation and driving competitiveness (Bautista-Frias et al., 2012). Given the individuality of each organization vis-à-vis mission, vision, values, beliefs, norms, policies, practices and processes, the authors contend that factors such as management and leadership approach and organizational culture are vital in the formulation of organizational knowledge codification processes intended to generate and enhance organizational intellectual capital. Codification facilitates the exteriorization of employees' tacit knowledge accumulated through experience into explicit knowledge taking the form of, for example, instruction manuals or guidance, learning and development programme content and new or updated procedures. As a result, knowledge maps are designed with the aim of codifying institutional organizational knowledge so that is accessible to those who have a need for and can make use of it. Representing the knowledge map as having a functionality geared towards strategy definition, the authors define it as "the design and maintenance tool of the knowledge management program... [that] must go beyond the aptitude for searching the firm's sources of knowledge" (Bautista-Frias et al., 2012: p. 48).

There are two key constituent processes in knowledge map design and creation. First, the undertaking of an organization wide audit of knowledge so that there is comprehension of the organization's history, development, mission, priority areas, strategic intent and its informational and knowledge requirements. Second, evaluating what the organization expects of its employees in terms of their abilities in the context of the organizational environment, which is often in a state of continuous change. The knowledge map should be composed of the main organizational procedures and activities, including all key processes and information relevant to these organisational procedures, and knowledge of the individuals (both internal and external to the organisation) who both supply and utilise knowledge within the organisation (Bautista-Frias et al., 2012: p. 48).

The knowledge map has a range of benefits: it enables resource amalgamation in the knowledge creation processes; stops employees from duplicating extant knowledge; and facilitates identification of the most expeditious source of knowledge acquisition. Comparing the knowledge that is required with extant organizational knowledge assists in knowledge needs identification, whilst the organization receives additional value from those activities and processes in which KM initiatives are introduced as a result of the knowledge mapping. As a management tool, the knowledge map facilitates diagnostic assessment of knowledge that is identified. The organizational act of trying to find ways of improving KM automatically produces the benefit of having KM processes being applied via quality management and the intranet. Another positive outcome of knowledge mapping is in its inherent identification of areas in which communities of interest and/or communities of practice can be situated. On the subject of tacit knowledge and its transformation to explicit knowledge for widespread organizational use, Fetterhoff et al. (2011) contend that its depth, complexity, resistance to codification and significance is particularly relevant to research, development and innovation.

2.3.1. Knowledge Sharing

Gupta et al.'s (2012) research revealed that knowledge sharing behaviour is positively disposed by relational psychological contract, whereas other factors (including organisational commitment, maintenance or breach of the psychological contract) have little or no impact. Knowledge sharing is one of the most significant KM features as when it is carried out successfully it contributes to effective knowledge creation and performance enhancement (Huang et al., 2011). Thus, cognisance of attributes influencing the obstruction of knowledge sharing can contribute value to the organisation. In their study of the social and cultural influences, including guanxi, trust and 'face', in relation to the decision to diffuse intrinsic and extrinsic organisational knowledge, Huang et al. conclude that within Chinese organisations, cognition-based trust does not significantly affect the decision taken to share explicit or tacit knowledge, whereas affect-based trust does have a significant impact. Furthermore, face-saving behaviours can demonstrate a negative impact on the decision whether or not to share knowledge (Huang et al., 2011, p. 557). These reveal

the importance of taking account of national culture characteristics when planning, designing and implementing a Strategic Ontological Police Force Knowledge Management Framework (SOPFKMF) for the Dubai Police Force.

2.3.2. Impediments to Knowledge Sharing

In a study investigating knowledge sharing barriers (KSBs), which they define as variables hindering organizational sharing of knowledge, Sharma and Singh (2012) identify those that are located at the root of organizational hierarchy as *driving* KSBs, and those at the apex of the hierarchy, *dependent* KSBs. Two KSBs receive particular attention because of their high driving proclivities, "'lack of top management commitment" and because "KM is not well understood" (Sharma & Singh, 2012, p. 35). Recognition of and remedial action to address KSBs, including delineating them within a hierarchy that categorically distinguishes between drivers and dependents, can assist organizations in circumventing pitfalls to efficient and effective knowledge sharing.

2.4. Social Ontologies

The literature reviewed in this section considers theories informing an ontological KM structure considered appropriate for the Dubai Police Force. A range of different theorists have evaluated the way in which organizational structures are established based on a variety of existing ontologies. Ontology refers to a state of common or shared understanding of a particular group of people about a specific domain. Ontology results from the process of negotiation between the people of organizations. The ontologies are made social within organizations by collaborative and shared organizational processes. These are the systems of collective identities and meanings within which individuals in organizations exist and act (Adamson, 2005). The most basic definition of ontology is that it is the reflection of reality in the form of a formalized model resulting from negotiations between individuals within organizations. Gaining an understanding about the knowledge relevant to the organization, together with the storage and retrieval of knowledge, is facilitated with the help of ontologies. The principal purpose served by ontologies is the

representation of knowledge in the form of formal models (Alazami & Zairi, 2003). Researchers suggest that before individuals within organizations gain a certain level of understanding related to the knowledge claims, they have to first agree on the ontological distinctions of the symbols containing and representing the knowledge claims (Avison et al., 1999). In today's rapidly changing business world, organizations have abundant quantities of knowledge at their disposal, comprising both structured and unstructured knowledge. The collective understanding about the knowledge related claims fluctuate constantly within organizations. Allard and Holsapple (2002) believe that one of the main influences on the ontology of KM within organizations comes from the managerial side. However, the managerial influence cannot be regarded as the only representative of the knowledge existing within the organizations.

Researchers define organizational KM according to their level of understanding and experiences. The most commonly used version of the definition of this concept suggests that the KM is the knowledge which is represented in the form of the organizational databases, information technology, the tacit knowledge of the employees, as well as, policies and procedures. It is the combination of these collective and distributed repositories that represents the knowledge of the organization. The communicative processes existing within the organization facilitate the collection, sharing, management, generation and storage of the knowledge. Therefore, ontologies explaining KM activities are outlined as being 'social' in nature (Avison et al., 1999). Practitioners also define ontology according to their individual perspectives. The most widely acceptable definition of this concept defines it as the study of the social human reality. According to Martins (2009), the social ontology framework investigates social aspects of organizations and their properties. The basic reason organizations develop social ontological frameworks is to inquire KM within organizations and to observe the organizational behaviour to gain a clear understanding about the social behaviour of the people working within the boundaries of the organizations (Bennett & Garbreil, 1999).

Ontologies, particularly social ontologies, are important theoretical constructs informing the management of knowledge. In an extension of this theory, Searle (2006) argues that social ontologies are both created by individual action and attitudes, but at the same time have an epistemic objective existence and are thus part

of the natural world. Whilst being theoretical in nature, Searle's (2006) exploration of social ontology as a framework is relevant for this research because it sets the context for the usefulness of social concepts and categories for the management of knowledge. This is in line with Fairclough (2005), who points towards the importance of understanding organizational discourses. According to Schatzki (2005: p. 465) social ontologies are concerned with the nature and basic structure of society and social phenomena. Schatzki (2005) argues that social ontologies can be divided into individual and societal entities and both are important in order to understand KM. In recent years KM in organizations has not been restricted to individual and organizational knowledge, but also has to consider the material set up of the organization (Schatzki, 2005). The importance of KM for electronic commerce has already been discussed. In summary, it can be argued that the organizational structure as reflected in the material set up is also important for KM.

Brey (2003) makes a similar point when evaluating the concept of social ontology for virtual environments, by asserting that virtual worlds exist with an ontology, reflecting the real world, and as a result, entities within them may be analysed according to their mode of existence (Brey, 2003: p. 276). Much KM takes place within a virtual environment. This appears to confirm the relevance of social ontology for the analysis of KM. If one understands virtual environments as real and not imagined, then ontologies allow for significant insights into organizational KM. Moreover, Martins (2009) makes a case for the importance of ontologies to understand collective identity. Collective identity, however, is an important aspect of KM. This particularly applies to the successful management of intrinsic and tacit knowledge. Whilst, extrinsic knowledge can be easily dispersed through information systems, tacit knowledge is based on unspoken rules and agreements. Both types of knowledge are vital for organizational success and social ontologies can be used to make sense of these rules and collective identities. Martins (2009) argues that human agents follow social behaviour rules, which occasionally can be out of line with their individual goals. This is particularly true for organizations because in many cases organizational aims and objectives do not align with employees' individual goals. In order to make the most of tacit knowledge, organizations have to understand ways in which employees' personal aims and objectives interlink with organizational goals, forming collective identities.

Traditionally, the theory of social ontology is divided into two contrasting camps – individualism and societism, both of which have been used to explain organizations. Individualists maintain that social phenomena are determined and constructed by individuals. "All social matters ultimately consist in and are explained by facts about people — either individual people or groups thereof (Schatzki, 2005: p. 467). Sociologists vary considerably in their explanation of social relations, but differ from individualists in that they argue that these relations are more complex than the construction of individuals and, therefore, consist of social phenomena explaining and determining social affairs. Schatzki develops this idea and proposes site ontology, in which the context (site) in which social life occurs is more adequately taken into account (2005: p. 465). For the purposes of the current research, a site ontological approach appears to be useful, because other considerations of KM for the service industry may not be applicable to the Dubai Police Force, which operates in a very specific religious, cultural and political environment.

Most MIS use social ontology to create software used in KM. Proposed in the 18th century, social ontology is concerned with the study of 'what exists'. In recent years, however, ontology has been applied to the study of KM. The rationale for using ontologies is the definition of domain semantics as conceptual relationships and logical theories. Elashaheb (2005) reported that IT is considered one of the major factors impacting on KM. The advanced technologies provide a good base for efficient management of KM. Nevertheless, Elashaheb (2005) considers organizational culture as one of the major constraints to effective KM. In order to make the most effective use of KM technology the culture of an organization should be an innovative, learning and knowledge sharing one (Elashaheb, 2005).

It is accepted that the correct ontological approach to knowledge management will vary, depending on the nature of the organization in question. However, although there has been considerable discussion in the literature about the best knowledge management approach for commercial activities, this may differ when it comes to dealing with a public sector organization, such as a police force. Košturiak (2010), for example, notes that whilst the processes within organizations are often heavily focused on ensuring that the actual processes are robust, this often deals with the physical activities being undertaken and does not necessarily cover the softer issues of how knowledge flows throughout the organization, alongside practical activities. In

the case of police activities, it is likely that there are strong processes in place for dealing with activities such as the processing of individuals, once they have been arrested, or investigating criminal behaviour. However, how these pieces of information are managed, from the point of view of sharing information across the different sections of the police force may not necessarily be as carefully planned.

Understanding the KM process requires sociological investigation the social rules applicable within both organizations and human behaviours. Employees within organizations, according to Martins (2009), do not always follow their own individual sets of goals and targets. Rather, they tend to follow the social rules and procedures relevant to human behaviours. Human agency is not determined by social behaviours and structures (Casselman & Samson, 2010). The most effective features of human social behaviour and cooperation are freedom of choice and the study of goals and values. Furthermore, the cooperation between the human also exists because of the transformations and reproductions in ontologically distinct social behaviours and structures. The main difference between the traditional ontological approaches and contemporary social ontology is that it goes into the detail of how various processes develop. The KM activities of organizations continuously evolve and their development and maintenance also takes place simultaneously, due to their social nature (Cha et al., 2008). Social ontology also leads to the development of algorithms that are useful computational tools for the successful implementation of KM. These are particularly helpful when organizations have to deal with huge amounts of knowledge (Avison et al., 1999). There are numerous methods that could be used for KM, sharing and organization. The social ontological framework is particularly helpful because it facilitates open communication between individuals within organizations by providing them with common knowledge about a certain concept or domain. Social ontology is one of the ontological categories that deal with the static, dynamic, intentional and social aspects of within the world. The social ontology framework covers organizations' social settings, as well as the permanent organizational structures, the network of collaborations and the interdependencies between organizations. Another difference between the traditional ontologies and the social ontology is the level of formalization between the two. The process of the creation, generation and maintenance of social ontologies differs from orthodox ontologies (Cheng & Chen, 2008).

2.5 Recent Studies

Kislov et al (2014) in their work on the development of multilevel capabilities in healthcare organisations examined the relationship between tacit and explicit knowledge. They stated that explicit, articulated and codified knowledge must be 'fed' into members of an organisation and applied in practice to make it tacit. Further, the capabilities of organisation can be conveyed in a less explicit form, for example, their history, values and beliefs which underpin the organisation. If tacit knowledge is to be passed on through members of an organisation, this knowledge must be codified. The articulation of knowledge is the process by which members of an organisation make their knowledge known by displaying their opinions and beliefs. Knowledge strategy in an organisation is a mechanism by which the organisation is ready for success, Mladkova (2014). Although knowledge is both explicit and tacit working together, one of them is usually more important that the other and organisations are able to choose between one of them – either a codification or a personalisation strategy. Codification strategy is more convenient for organisations for which explicit knowledge is the leading one; personalisation strategy supports the work with tacit knowledge. In terms of knowledge sharing, Mtega (2014) stated that knowledge sharing should be encourages because it encourages people to indulge and participate in knowledge creation which can be used at a later date. The author adds that knowledge needs to be stored close to where is has been created so that it can be used successfully at a point in the future. Also, according to Garanina (2014), Human Resources play a very important role in enhancing knowledge sharing practices and this department increases the commitment levels between employees. This has the positive effect of building relationships and developing processes and platforms for knowledge sharing practices. In terms of culture, Azudin, Ismail & Taberali, (2014:144) institutional culture has a connection with knowledge sharing practices in a debate about higher learning institutions. They quote: "Each institution has its own culture which develops over time to reflect the organisation's identity".

2.6 Summary

This chapter has presented a review of the relevant literature that will be used to assist in the development of the SOPFKMF. Any ontological KM framework for the Dubai Police Force has to be cognizant of the fact that much organizational interaction is constantly changing and never becomes institutionalised. As a consequence, the KMS has to facilitate the sharing of both institutionalised and fluid knowledge (Fairclough, 2005). In addition to providing empirical insights into reconfiguration process of the US health care sector in response to market reforms, Ruef (1999) sheds interesting insights into the KM needs and integration of the Dubai Police Force. Ruef (1999) concludes that actors in the sample organizations have engaged in blending and segregation processes in response to ontological insecurity and the desire to make sense of their social and organizational structures. In some ways, the Dubai Police Force is currently responding and trying to merge different forces, including traditional and religious concepts and the requirements of an increasingly globalised economy. Therefore, Ruef's (1999) insights may prove valuable in analysing the Dubai Police Force.

The current Knowledge Management process within the Dubai Police Force takes the form that although the staff members are aware of knowledge and where to find it, they are unaware of the usefulness of this knowledge for the future – that is, how this knowledge will be of benefit not only for them or their departments, but for the police force as an institution. Further, the current framework is one that does not easily permit the making of that knowledge available to other members of staff. Also, the current process there is a lack of appreciation of the significance of tacit knowledge derived from experience, as opposed to explicit knowledge that is already represented and codified. The current system does not allow the notation of new details which should be accessible for the staff to see. This is vital if all departments are to work interdependently. The Dubai Police Force is needs all information to be uploaded into a central interface so that knowledge of cases is shared. Further, there currently is limited mobility between departments in order to pass knowledge from one department to another. Training is currently limited which is not only desirable but vital to the effective working of the force and passing knowledge to all areas. Knowledge codification and technology utilisation is currently not functioning to its fullest potential therefore creating inefficiencies within the entire force. These issues

are vital and should be addressed if the Dubai Police Force wishes to fully function into an institution fit to tackle not only historic crime but prevent crime in the future.

Chapter Three: Research Methodology

This chapter presents the methodological framework and data collection strategies employed during the course of this study, and will justify the choices made in relation to the research aims. Research methods in KM research constitute an extremely broad range of approaches, including empirical, quantitative studies, and qualitative approaches rooted in social constructionist methods. As a result, these different studies are often underpinned by very different philosophical and epistemological positions. In order to facilitate further use of the research, it is important to establish the research framework and philosophy that governs the study, allowing it to be situated within the context of different schools of research and investigation. This study adopts an interpretivist research paradigm, and focuses on a case study in which a mixed-methods data collection strategy is used. This chapter will describe the research instruments, and data collection processes and provide a rationale for the choices made throughout the course of the research.

3.1. Research Paradigm

This study is grounded in an interpretivist research paradigm. Interpretive research holds that reality (whether or not it exists objectively or is socially constructed) may only be observed within a social context. In practice, this means that access to reality must be garnered through "social constructions such as language, consciousness, shared meanings and instruments (Myers, 2008: p.38). As such, interpretivism argues against the positivist conception of reality and approach to the phenomenon, suggesting that knowledge arises inter-subjectively. In addition to this, interpretivist approaches place considerable emphasis on the researcher as directly implicated in the process of research, rather than maintaining a objective distance, as is the case in positivist research. Rather, following a subjectivist epistemology, interpretivist researchers typically adopt a co-operative and participative relationship with the subjects of their investigation, implicating themselves in the co-construction of knowledge through their social interactions (Pizam and Mansfeld, 2009). Although for this reason interpretivist studies may be criticised due to the scope for personal biases to influence the investigation, they also offer considerable benefits when

researching qualitative issues in management such as leadership, or organisational culture. The interpretivist paradigm has been selected for this study due to the need to provide a comprehensive and holistic analysis of the issues and problems facing the Dubai Police Force and their KM strategy. This approach allows the researcher to explore the cultural factors that impact upon organisational performance and that may limit knowledge sharing across departments.

3.2. Research Methodology: Action Research with Case Study

This study approaches the problem of KM through the use of a single, in-depth case study. Case studies offer the opportunity to study phenomena within an organisational context, observing the real-world interactions and problems that arise in organisations on a day-to-day basis (Wallace et al., 2010). Case studies are useful, furthermore, in that they allow the researcher to achieve investigative depth in one particular area, and thereby study the entire context that shapes and impacts upon the problem under investigation. The strengths of case studies, however, correspond to their weakness: by focusing on one specific and subjective situation, generalizability of the conclusions of the research is somewhat limited (Ritchie and Lewis, 2003). In the case of this study, this does not pose a major obstacle, as the principal objective is to craft a new KM framework specifically for implementation within one particular police force, but the results may have a wider applicability due to the fact that the case itself shares many features with other organisations in different contexts. As discussed above, many organisations that adopt a siloed structure of parallel departments may experience difficulties devising and implementing an effective KM strategy, and as a result, the framework proposed here may have a utility beyond the specific case in question. Moreover, although conclusions based on one case study are not necessarily easily generalised, the findings may be compared with other case studies to contribute to a wider picture of the development and implementation of KM strategies. As a result, it has been concluded that the case study methodology offers the most useful approach to achieve the aims of this study.

3.2.1. Case Study Selection and Description: The Dubai Police Force

The selected case for this project, as noted above, is the Dubai Police Force. This is a well-established and respected institution in the Gulf, and has developed a reputation as being socially and culturally progressive, and open to the adoption of new technologies within the organisation. This means that the majority of employees are likely to be computer literate, and open to new ideas and strategies. Although this potentially means that the case offers a less realistic environment (as the employees are potentially more predisposed to accommodate the changes in administration than in other organisations), it provides a good opportunity for the development and testing of a new framework, ironing out any immediate problems, which may then be adapted and tested in less favourable contexts. This section will briefly describe the business model and processes, and key individuals, which characterise the Dubai Police Force.

3.2.1.1. Overall Objectives and Values

The dominant mission of the Dubai Police Force is to *prevent* crime, rather than necessarily to *solve* crimes; therefore, its knowledge management system needs to be focused on providing the information to officers for use in crime prevention. Investigation comprises an important, but perhaps less salient, arena in which knowledge sharing plays a key role. In to addition this, co-operation, both within the organisation, and with external third parties, is regarded as a crucial aspect of the organisational ethos. This third party interaction must be taken into account in the development of a new KM strategy. Although crime prevention and detection are at the centre of the organisation's aims, secondary responsibilities, such as transport, security, and crisis prevention and management also require knowledge sharing and management. The proposed framework must be oriented around these organisation-wide objectives and responsibilities, to ensure that any changes cohere with the aims, strategies and values of the organisation itself.

3.2.1.2. Key Personnel and Organisation

One of the key individuals within the Dubai Police Force is the Commandant General, who is also known as the Lieutenant General. This nomenclature demonstrates the close link between the police force and the military, and this individual has been extremely influential, not only within the evolution of the police force, but also in relation to security and wider military affairs. The Deputy within the Dubai Police Force also has a long history with the force, having joined in 1987. However, his background is very different, having studied law in the U.K., before going on to undertake a Diploma in Police Science, in the Dubai Police Academy. The senior leadership personnel of the police force, therefore, tend to be socially significant figures who are well educated.

The overall organisational structure of the Dubai Police Force involves five key individuals at the head of the organisation, dealing with specific issues such as general security, in addition to the Chief of Police and the Deputy Chief. Below these five key individuals are the General Commanders Office, as well as the decision-making support centre staff who are seen as central to the operation of the Dubai Police Force and who pull together the general departments dealing with specific areas in which the Dubai Police Force operates. For example, there is a general traffic department, as well as a general department of forensics, amongst others. All of these departments have their own roles; yet, overall, they are bound by the general principles of the Dubai Police Force. This needs to be borne in mind, when creating a new KM structure, as it is necessary for knowledge to be provided to all departments that will, ultimately, assist them. However, each department has its own area of expertise and its own agenda, to a certain extent. The exact departments are detailed in Chapter 6 below, in order to provide a full indication of the breadth of departments that are operating within the Dubai Police Force. The current structure of the organisation may be summarised as having a vertical knowledge flow, rather than one that moves horizontally across departments. For example, if information is available within the police stations that would be considered useful to the Dubai Police Academy, then the information would travel up to the General Commander or any other relevant manager before travelling back down to the Academy. This clearly not only wastes time but also runs the risk of vital pieces of information not reaching the relevant departments. This organisational structure exposes a critical need for better

KM practices, which means that this particular case offers a useful context in which to develop and implement a new Km framework based upon real-world organisational requirements.

3.3. Data Collection

This study adopts a mixed methods approach to data collection based upon both qualitative and quantitative methods. Quantitative research is commonly associated with empirical studies, as it focuses on numerical data derived from pre-existing hypotheses and assumptions determined by the researcher. Quantitative research methods are particularly useful in gathering large amounts of information from distributed participants, as the results can often be analysed using statistical programs, making it a cost-effective and efficient way to gather information from multiple data sources (Bryman and Bell, 2011). However, quantitative research methods are always framed by the subjective bias of the researcher, and they only collect information that has been pre-determined as interesting within the investigation design. This means that while quantitative methods may be useful in proving or discarding pre-determined hypotheses, they seldom throw up new information (Bryman and Bell, 2011). This means that they are frequently associated with deducted reasoning methods and positivist research frameworks, although they are by not means limited to this approach. Qualitative research methods, on the contrary, aim to collect the subjective perceptions of participants, allowing them to express their responses in their own words. This provides a rich data source that must be interpreted by the researcher, but this type of data collection tends to be costly and time consuming to administer and analyse (Ritchie and Lewis, 2003). However, qualitative research methods provide space within the investigation for new issues and ideas to emerge, that have not been predicted by the researcher.

Within management research, and particularly in case studies, mixed methods data collection strategies have emerged as a popular choice among researchers. Mixed methods approaches tend to utilise both quantitative and qualitative data collection methods, providing multiple data points that may be triangulated to form conclusions. Although this approach has been posited as the 'best of both worlds', mixed method approaches also have drawbacks, often creating different datasets that are difficult to

cross-reference and compare, due to their fundamentally different nature (Wallace et al., 2010). Despite this, mixed method approaches do have the advantage of creating rich datasets that can expose issues not previously considered by the researcher. In case study research, mixed methods can help to provide a comprehensive picture of an entire organisation within its real world context, and the disadvantages of comparing radically different datasets are mitigated by the focus on building a complete picture on particular case, or organisation.

This study will adopt a mixed methods data collection strategy, implemented in a stratified chronological order. A survey will be distributed to employees across the organisation in order to isolate the key issues that affect KM implementation in the Dubai Police Force. Following this, the results of the questionnaire will be used to devise interview questions, presented to key figures in the organisation's management. Finally, focusing on the issues elicited from the questionnaire and the interviews, the researcher will engage in a three-week observation of the practices and KM strategies within the organisation. In this way, the data collection strategy will be targeted to the salient issues, but will also provide room for unexpected information to emerge, whilst simultaneously building a rounded and holistic picture of organisational practices within the police force, taking into account multiple perspectives.

3.3.1. Survey

The initial data collection involved the construction of a survey (see appendix 1), distributed to employees throughout the organisation. Surveys were conducted in 2013 followed by the interviews. The researcher used these results of the survey to formulate appropriate questions to be asked in the interview process and the questions were aimed at selected members of the staff. After the interview process, the observational period was done by the researcher. Surveys are useful in that they permit a significant amount of participants to be involved, and they produce data that may be analysed statistically. One of the major drawbacks with questionnaires is that they often have a low response rate, although this problem can be mitigated by encouraging people to take the questionnaire in person, administering it by phone, or by offering an incentive. In the case of this study, the survey was used to provide

initial findings that would later inform the development of interview question and frame the researcher's observations. The survey was piloted prior to the principal data collection, in order to ensure that all of the questions were easy to understand and there were no confusing elements. Following the questionnaire design, the survey was distributed to 5 volunteers in the Dubai police force, who were asked to complete the survey and then provide feedback on elements that were confusing or difficult to understand. The questionnaire design initially retrieved data about the respondent as to their education levels, age and position with the Dubai Police Force. The initial questions were aimed at establishing how the police force used and transferred knowledge and their perceptions of this knowledge within the force as to its effectiveness and sharing capacity. The second aspect engaged the respondents into answering questions about the culture within the police force. The third part of the questionnaire aimed to establish the structure of the police force and relating to its effectiveness. The rationale from these questions and the thematic arrangement was geared towards linking the three headings, knowledge awareness, culture and structure together as these form the foundation upon which knowledge is transferred and hence, shared. If there is a breakdown or a negative perception in one of these components, then knowledge transfer could be compromised and hence, sharing may become less effective. The pilot study raised a number of issues related to the wording of questions, which were subsequently adjusted for clarity. The adjusted survey was then re-distributed to the volunteers who approved the changes.

The survey consisted of 36 multiple-choice questions that covered a variety of potential areas within the organisational structure and management. The questionnaire was administered by email to respondents in multiple roles and ranks across the organisation. The participants were selected according to a stratified sampling procedure that aimed to select participants from across departments and throughout the police force hierarchy. This methodology involves sampling from a population. The process of stratification involves dividing members of the chosen population into various sub-groups before sampling. These sub-groups are called strata, Kitchenham and Pfeeger (2002). My sample was chosen from my consideration of what constitutes a fair representation of every type of employee from the departments because my aim is to establish the extent to which tacit knowledge is transferred between all departments, therefore a representative from each was required to

participate in the questionnaire. Therefore, I carefully assessed the representatives from each hierarchy level of every department and selected those participants for the questionnaire. Overall, 150 questionnaires were distributed, and 131were returned completed (87.3% response rate).

3.3.2. Qualitative Research: Structured Interviews

Structured interviews are a qualitative method of data collection that permit rich 'thick descriptions' of the phenomena under investigation. They are typically used to gather subjective perceptions and to elicit further information about why the participant holds certain views or perspectives. The inter-subjective nature of the interview allows the researcher to make contact with the participant, and gather contextual data about their physical and emotional response to the issues under investigation, by observing body language and attitudes. Interviews may be structured, semi-structured, or unstructured. In the case of this study, the interviews were structured, with a pre-defined list of questions that were developed following the analysis of the survey responses. This ensured that the responses of the all the participants could be compared with one another, rather than producing radically different discussion as is often the case in unstructured interviews. However, the format itself also left room for the participants to raise other issues, which had not been foreseen by the researcher, if they wished. Four employees in senior positions were interviewed, selected from different departments, and occupying different roles. These participants were selected following consultation with the senior management, who advised as to which senior figures within the organisation would be able to provide appropriate insights. They were initially approached by senior management, and then contacted in person by the researcher, who offered further details about the project and answered any questions before the participants agreed to be involved in the investigation. The interviews consisted of 16 pre-formulated questions (see appendix 3). The interviews were recorded to facilitate analysis, and additionally, the researcher took notes relating to the participant behaviour, which could later be used in the analysis stage.

3.3.3. Personal Observations

In addition to the data collection methods outlined above, the researcher also conducted a three-week observation period in which he recorded his own personal observations regarding the current KM implementation within the organisation. The observation took place across four different departments from the supportive and core business departments within the Dubai Police Force. This part of the data collection took place after the survey and interviews had been conducted, and allowed the researcher to cross-reference and verify information given in the interviews with the reality within the organisation. Observational data can be particularly useful in validating or challenging the subjective perceptions of the participants, and also offer the researcher the opportunity to build a comprehensive picture of the internal administration of the organisation. As Walshe comments, "the observational data collection method can facilitate understanding of what people do and how this can alter in response to situations and over time, especially where people find their own practice difficult to articulate" (Walshe, 2012: p.1048). The data was recorded through the use of note-taking and a personal reflective diary used during the course of the research process.

3.4. Data Analysis

The data analysis process was continuous throughout the investigation, as data collected at each stage of the analysis contributed to the development of the research instruments for subsequent parts of the investigation. The first stage of data collection focused on the quantitative data collected through the surveys. A SPSS package was used to analyse the data and isolate significant results that would later be subject to specific enquiry in the interviews and observations. The quantitative analysis raised a number of key issues that formed the basis of the interview questions. Following the second part of the data collection, the recorded interviews were transcribed and coded according to the salient themes emerging from the data. The coding process operated in three stages: initial coding, which identified high level themes emerging from the responses; secondary (axial) coding, in which these high level themes were broken down to provide a more granulated analysis, and cross referencing to find causal relationship between the different categories identified; and selective coding, in which

the different identified categories are systematically related in order to develop overall conclusions from the research. Finally, both the conclusions drawn from the quantitative and qualitative data collections stages provided points of focus for the researcher observations, allowing the researcher to further probe the issues that had been raised by members of the organisation, and to explore them in more detail by observing the day-to-day processes of the organisation in practice.

3.5. Ethical Considerations

During the course of the research and data collection, a number of practices were observed in order to ensure that the study adhered to ethical guidelines. All participants were informed of the investigation's purpose, the reasons for the intervention, and the uses to which the material would be put. They were approached by the researcher prior to the investigation and were asked to grant explicit permission for their data to be used in the investigation, and in the case of the interviews, to consent to being recorded. They were also informed that they could withdraw from the study at any point. In this way, informed consent was elicited from all of the participants. All questionnaire data was anonymised in order to protect individuals' professional identities and relationships, and in order to encourage participants to be frank and honest in their answers. The survey was conducted using Smart Survey where the links were sent directly to HR then distributed to the participants. The responses were directed directly to the Smart Survey which meant that the participants remained anonymous. In addition, any personal or attributable data, including interview recordings and transcriptions, were stored securely in a password protected file. During the process, participants were invited to ask questions about the study and offered further information if required. The interviews were conducted in a comfortable, private and neutral environment, and the researcher endeavoured to make each of the participants feel comfortable and relaxed.

3.6. Limitations

During the course of the research and data analysis, a number of limitations within the research design emerged. The most significant problems within the research design were focused on the questionnaire, which was slightly too long, comprising 36 questions. Although efforts had been made to reduce the cognitive burden placed upon the participants by ensuring that the questions were all multiple choice, the length of the questionnaire may have dissuaded some participants from completing the survey, or led to skewed responses. In addition to this, several problems emerged with the wording of the questionnaire, meaning that participants expressed some confusion regarding the nature of the questions and how they were to be differentiated from earlier questions in the survey. It seems apparent that some of the questions were very similar in wording to one another, leading to repetition and redundancy in the questionnaire, and causing confusion among the participants. Therefore, it became apparent to me that duplicate responses would be a distinct possibility. If the similar or duplicate responses are not removed prior to assessing the data quantitatively, the results may be skewed and computed means and medians may be thrown off. Therefore, in order to minimise the risk of this, I used Smart Survey, which provides built in features which assists in reducing the risk of duplicate responses. This helped me to find the duplicate or similar responses and I was then able to carefully eliminate one of them, thereby reducing the risk of skewed results. These problems may have been addressed by more extensive piloting of the questionnaire: although the questions were piloted among a small sample group, this did not highlight significant problems with the length of the survey or the wording of the questionnaire. It is possible that more extensive piloting, over a larger sample of participants, would have exposed the issues in the question design at an earlier stage.

In addition to this, a number of barriers were exposed in the interview stage of the data collection. Some participants were eager to present the organisation in a positive light, which may have led to them over-emphasising certain practices, and omitting others. This led to a slightly polarised set of views regarding the relative successes and failures of the organisation in relation to the knowledge management practices within the organisation. These biases were moderated by the researcher observations, but must also be taken into account in the analysis stage of the research. Finally, the investigation highlighted a number of factors that were specific to the institutional,

cultural and organisational context of the Dubai Police Force, meaning that the generalizability of the conclusions of the research is somewhat limited. However, as described above, this effect can be mitigated by comparing this study to other comparable case studies and establishing key common experiences that impact upon knowledge management strategy and implementation.

3.7. Summary

This chapter has described the methodological design of the present study and provided justification of the methodological choices made during the course of the research. The study, rooted in an interpretivist paradigm, and comprising a case study based on a mixed methods data collection strategy, intended to elicit a comprehensive and rich picture of the organisational practices in the Dubai Police Force, with a particular focus on KM. The case study methodology offered an effective way to achieve this aim, and the research design ensured that a variety of data were collected and could be used to triangulate the findings. The following chapter will present the results of this investigation, which will then be used in order to formulate an appropriate framework for implementing improved KM practices throughout the organisation.

Chapter Four: Case Study Analysis and Findings

This chapter presents the results of the investigation utilisng a case study to validate the Framework and present the results of the KM practices currently in use in the Dubai Police Force. The results are presented acording to the three main data collection strategies adopted in the investigation, as described in Chapter Three above. The first part of the data collection involved a quantitative questionnaire distributed to a selection of employees from across the organisation. The results from the questionnaire (see appendix 2) were then used to inform the questions used in structured interviews with four members of the senior management. Finally, the researcher conducted a series of observations within different departments of the Dubai Police Force. This chapter will present the results of each stage of data collection, and then cross-reference and discuss the findings as a whole. The chapter will draw conclusions relating to the current issues that affect the knowledge sharing and management operations within the police force. These findings will then form the basis for the development of the SOPFKMF, presented in Chapter Five.

4.1. Survey Results

The survey was intended to elicit the views of a range of participants in the organisation. The survey consisted of 36 questions, which targeted a range of themes and issues. The survey aimed to understand participant perspectives in relation to the existing knowledge management systems in place in the Dubai Police Force, in addition to gauging the broader awareness among employees relating to conceptions of knowledge, knowledge management processes and the importance of knowledge sharing within organisations. Currently, Dubai's Knowledge Management System is run by the General Department of e-services and the General Department of Human Resources who manage all the administrative responsibilities including hiring, promotion and personnel training. The department is also responsible for the input of all information into the Knowledge Management System.

4.1.1. Participant Breakdown

The survey was distributed to a stratified sample of participants throughout the organisation. This is a method of sampling from a population. The process of stratification involves dividing members of the chosen population into various sub-groups before sampling. These strata are mutually exclusive and work independently. This methodology serves to improve the sample representation and at the same time, reduce the sample error. In total, 150 questionnaires were distributed via email, and 131 were returned completed, giving a response rate of 87.3%. Figure 4.1 shows a breakdown of the participants by age and gender.
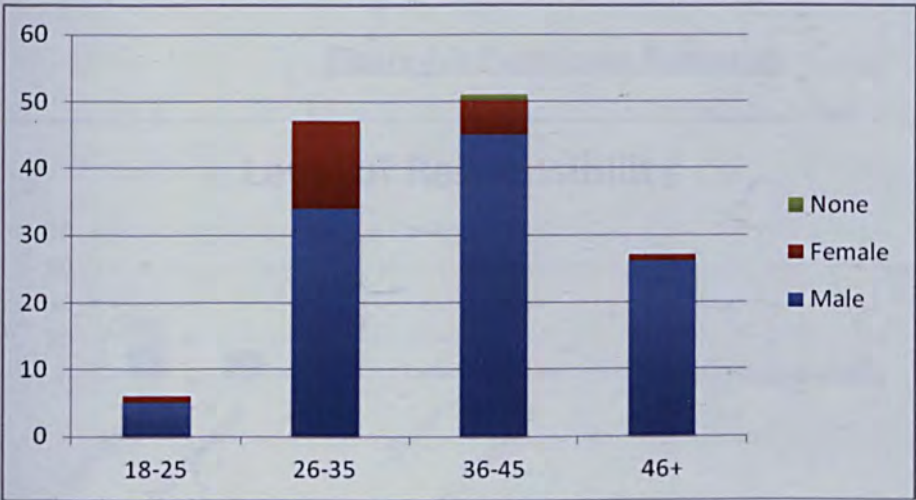
Fig. 4.1: Participants broken down by age and gender

15.2% of participants (n=20) were female, meaning that the vast majority of participants were male. The majority of participants (74%) were aged between 26 and 45. In addition to this, data was gathered relating to the participants' educational background and level of responsibility within the organisation. Figure 4.2 and 4.3 show the breakdown of participants according to education and position within the management hierarchy.
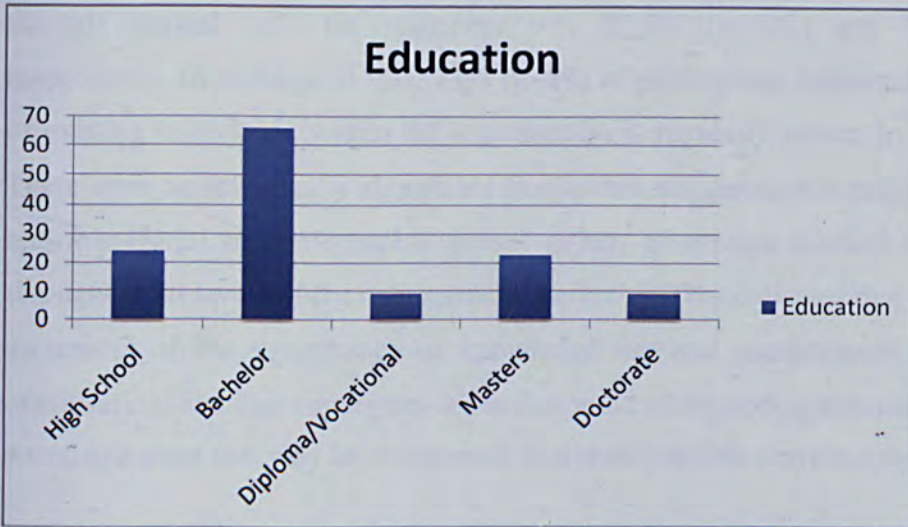
Education

Figure 4.2: Participant Education

Level of Responsibility

Fig. 4.3: Participant breakdown by responsibility

4.1.2. General Attitudes

The majority of participants appeared to have a generally good understanding of the concept of knowledge management and its importance within the organisation. Overall, participants were cognisant of the principal concepts relating to organisational knowledge and knowledge management, and its potential utility in the day-today operations of the organisation. The majority of the participants indicated that the Dubai Police Force relies upon knowledge gained in previous cases and experiences in order to inform new decisions and activities. In response to questions 5 and 6, which pertained to the reuse of existing knowledge and information in relation to current issues, decisions and cases, the percentage of participants who agreed or

strongly agreed with the statement was 80.8% (n=105) and 85.4% (n=111) respectively. In addition to this, 73% (n=89) of participants indicated that over 75% of existing knowledge within the organisation is regularly reused in new situations. There were no statistically significant results that suggested this might be specific to one managerial or demographic group: rather, perception seemed to be the same throughout all levels of the management hierarchy. This indicates that there is a broad awareness of the significance of knowledge use and management throughout the organisation, and that employees are accustomed to the notion that past knowledge is a strategic asset that may be repurposed continually within current operations.

In addition to this, the survey attempted to investigate participants' understanding of the concept of tacit and explicit knowledge, and to understand which aspects of the knowledge management cycle were most highly valued. 69% (n=87) of participants agreed, or strongly agreed, that knowledge that resides in individual's minds is the most important type of knowledge to be repurposed. This indicates that there was a considerable importance, according to the participants, placed upon the notion of tacit knowledge, and that this represented a considerable asset to the organisation. Question 8, furthermore, asked individuals to reflect upon the most important knowledge management process within the Dubai Police Force (see Figure 4.4).
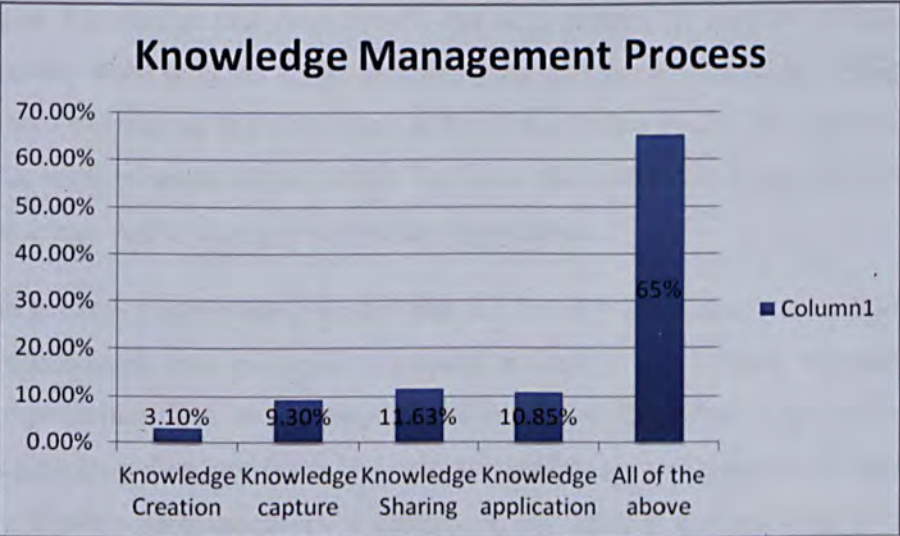
Figure 4.4: Question 8: In your opinion, what is the most important Knowledge Management process in the Dubai Police Force?

The responses to this question indicate that there is a high level of awareness of the importance of knowledge creation, capture, sharing and application, with 65% of participants stating that all of these factors are important in the KM process. Fewer participants pointed to the significance of knowledge creation, which may be interpreted in a number of ways. It is possible that knowledge creation as a concept is less applicable in the context of the police service, as the primary function of the service is to *respond* to external events and pressures, rather than to proactively seek out new information. However, it may also suggest that the organisational culture in the police force does not facilitate or encourage innovation and individual employee initiative. This finding was flagged for further investigation in the subsequent data collection phases.

4.1.3. Knowledge Acquisition

As identified in the literature review, knowledge acquisition is the primary stage in the knowledge management process. Knowledge acquisition is the process of obtaining knowledge from outside of the organisation (Gamble and Blackwell, 2001). These external sources of knowledge are important and ensure that the organisation continues to develop and improve current practices. However, knowledge acquisition may also be achievement by converting existing knowledge and past experiences into new knowledge that may benefit the organisation. A number of questions in the survey were directed at the understanding and perception of knowledge acquisition processes among the employees of the Dubai Police Force. The questions focused on the mechanisms available within the Force that enabled new knowledge to be created, managed and exchanged within the organisation.

In general, participants indicated that the Dubai Police Force has a number of existing mechanisms and processes designed to create and import knowledge into the organisation. Due to the purpose and nature of the Dubai Police Force, knowledge acquisition does not (as is the case for businesses and consumer-facing companies) originate with competitors or customers, but rather is derived from knowledge based on historical case work, and information from peripheral branches of the Force, or external organisations (such as international bodies, for example, Interpol). The participants of this study strongly suggested that the Dubai Police force has effective

strategies in place for the creation of new knowledge, the distribution and exchange of knowledge across departments, and processes for the management of new knowledge. Figure 4.5. shows participant responses to the statement "Dubai Police Force has in place different mechanisms and processes to create knowledge by using the previous knowledge".
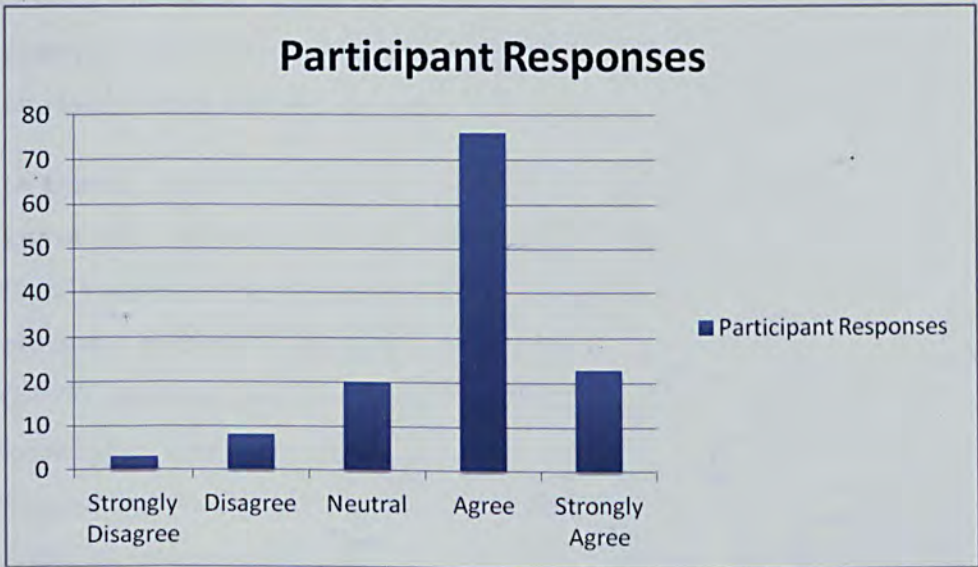
Fig. 4.5: Question 10: Dubai Police Force have in place different mechanisms and processes to create new knowledge by using the previous knowledge

Approximately 76% (n=99) of the respondents stated that they agreed, or strongly agreed, with the statement, indicating that knowledge creation from existing sources is a widespread phenomenon within the Dubai Police Force. Similarly, 73% (n=96) of respondents agreed or strongly agreed with the statement "Dubai Police Force has in place different mechanisms and processes to distribute knowledge across units and departments". Finally, participants indicated that the Dubai Police Force has sufficient technology to create and manage new knowledge within the organisation (75% (n=98) agreed or strongly agreed).

4.1.4. Knowledge Conversion

Knowledge conversion is a key aspect of knowledge management and relates specifically to the processes and mechanisms that allow existing knowledge within an organisation to be made useful. More specifically, this relates to the way in which

knowledge is converted from one form to another, and, following Nonaka & Takeuchi's (1996) SECI model, allow knowledge to be transformed from tacit to explicit, and vice versa. The SECI model (Nonaka & Takeuchi, 1996) refers to the four processes by which knowledge conversion is achieved: socialisation, externalisation, combination and internalisation. The present study focused on the existing processes within the Dubai Police Force that allowed knowledge to be absorbed from individuals, transferred from one individual to another, and to integrate knowledge from different sources.

In general, participants appeared to be highly positive regarding the way in which knowledge conversion occurs within the Dubai Police Force. For example, 70% (n=91) agreed or strongly agreed that the organisation has appropriate systems and processes in place to filter and manipulate existing knowledge. Furthermore, 73% (n=95) indicated that the organisation has effective systems in place for absorbing knowledge from individuals, and transferring it to other individual, This would suggest that the Dubai Police Force has appropriate measures in place for identifying and transferring tacit knowledge among the employees. In response to Question 18 (see Figure 4.6 below), although participants were largely in agreement that the organisation had processes to integrate different types of knowledge from different sources, there were a significant number of participants who marked 'neutral' (24%, n=30). This may suggest that there was some confusion regarding the question, or that participants are not aware whether such processes exist and what their utility is.

Integrate different types of knowledge from different sources
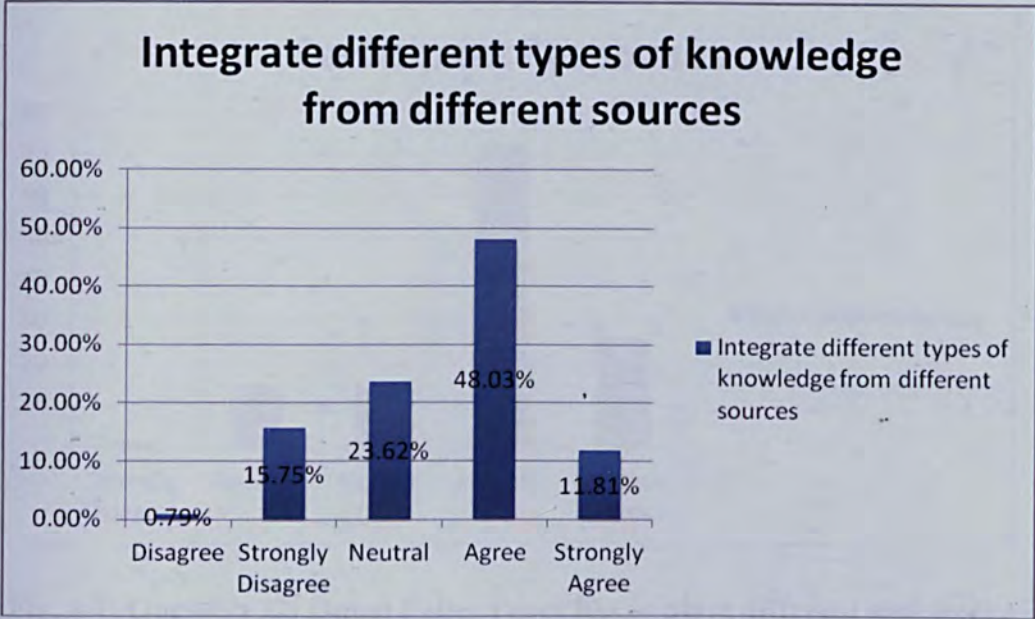
Figure 4.6: Question 18: Dubai Police Force have in place different mechanisms and processes to integrate different types of knowledge from different sources

4.1.5. Knowledge Application

Subsequent questions in the survey address the issue of knowledge application: i.e., the process of creating value from knowledge, and mobilising existing knowledge to solve new problems. The following question asked participants if they believe that the Dubai Police Force had mechanisms to learn from previous mistakes. 75% of participants responded 'agree or 'strongly agree (see Figure 4.7). This indicates that participants were generally very positive about the capacity of the organisation to repurpose knowledge and apply it to new contexts and problems. Similarly, 79% of participants stated that the Dubai Police Force has sufficient mechanisms to learn from past experiences (see Figure 4.8).

Participant Responses
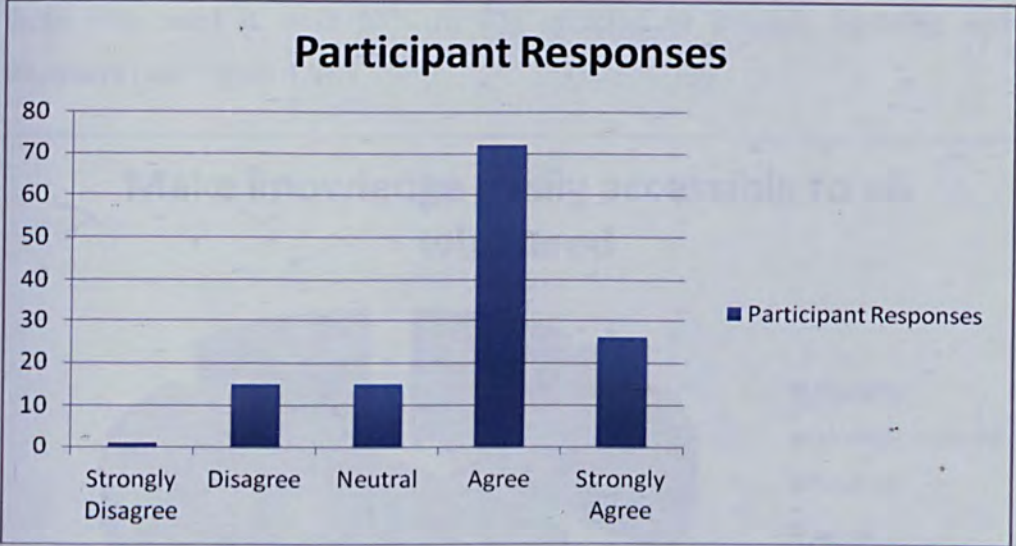
Fig. 4.7: Question 22: Dubai Police Force has in place different and mechanisms to learn from mistakes.

Learn from experience
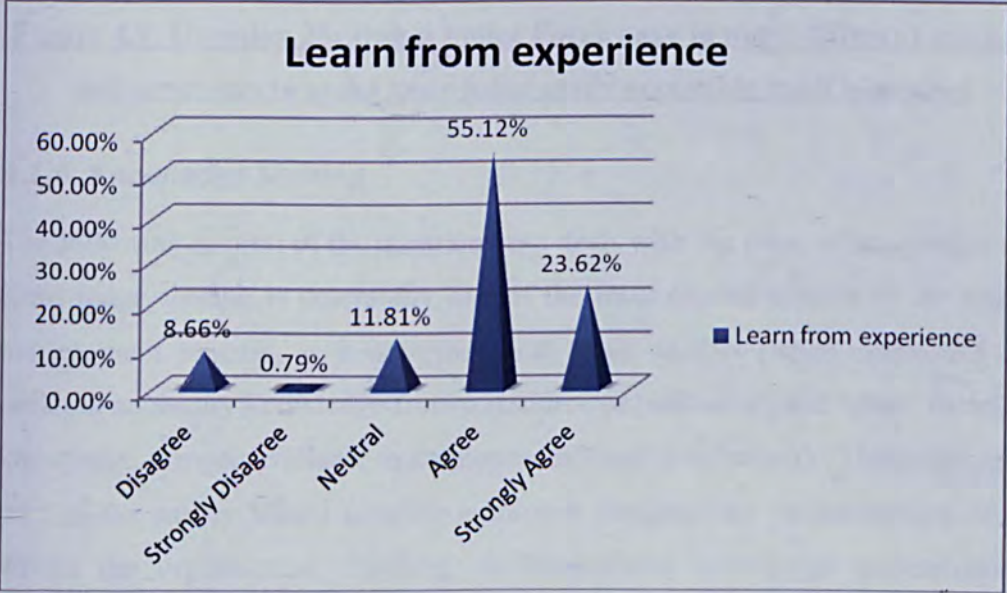
Figure 4.8: Dubai Police Force have in place different mechanisms and processes to learn from experience

These results suggest that employees within the police force have a good awareness of how to share knowledge, how to use the system to input their knowledge, how to read and search their colleagues' knowledge, and how to reuse and make use of the past experience for the current situation. Knowledge appears to be widely accessible to

those who need it, with 65% (n=83) agreeing or strongly agreeing within this statement (see Figure 4.9).

Make knowledge easily accessible to all who need

- 14.84%
- 13%
- 4.69%
- 17.19%
- 50.00%

■ Disagree
■ Strongly Disagree
■ Neutral
■ Agree
■ Strongly Agree
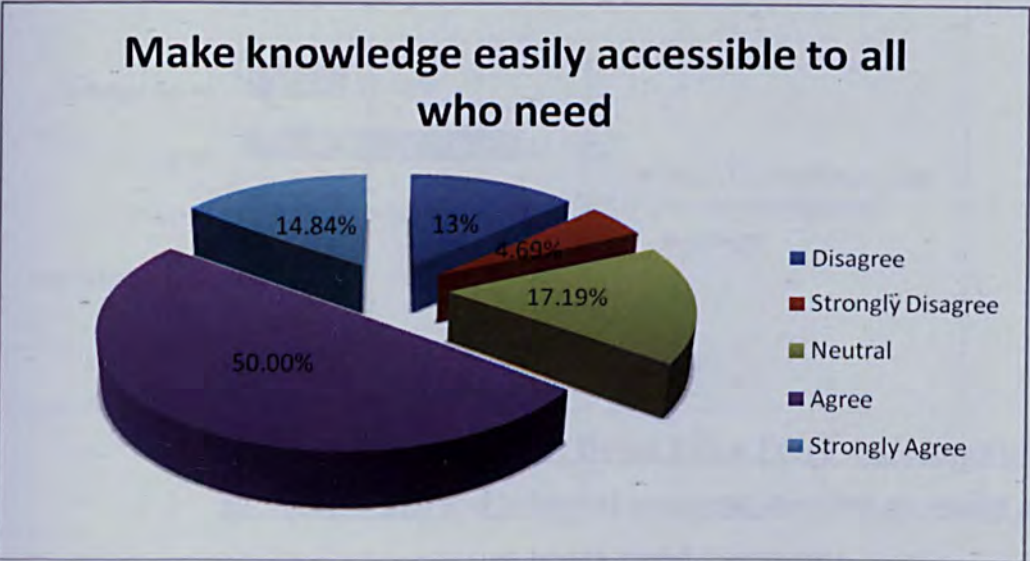
Figure 4.9: Question 25: Dubai Police Force have in place different mechanisms and processes to make knowledge easily accessible to all who need

4.1.6. Knowledge Sharing

The following section of the questionnaire dealt with the issue of knowledge sharing. Knowledge sharing is potentially one of the most crucial aspects of the knowledge management process, as it describes both 'pull' factors (when employees actively seek out necessary knowledge from a resource or individual) and 'push' factors (when knowledge is made available to employees without solicitation). The questions in this part of the survey aimed to elicit employee perspectives on the culture of sharing within the organisation, focusing on hierarchical knowledge transmission, staff training and expert advice, and sharing of knowledge across teams and departments. Figure 4.10 displays participant responses to the question of whether knowledge is shared through formal and informal meetings.

Share knowledge through formal and informal meetings

- Strongly Agree — 17.05%
- Agree — 48.84%
- Neutral — 16.28%
- Strongly disagree — 3.10%
- Disagree — 14.73%

■ Share knowledge through formal and informal meetings
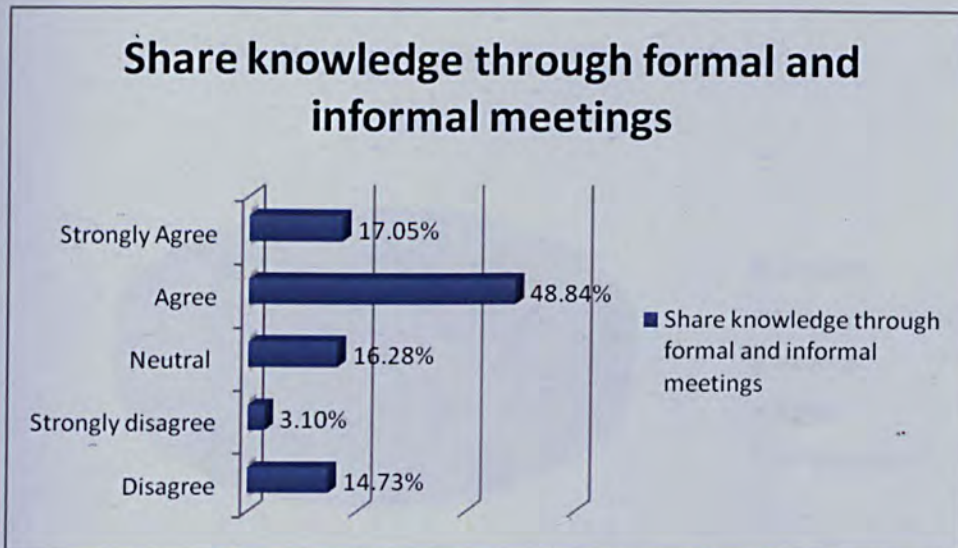
Figure 4.10: Question 26: Dubai Police Force share knowledge through formal and informal meetings/ discussions within and across teams and departments,

Sharing knowledge through formal and informal meetings/ discussions within and across teams and departments is extremely important within in Dubai Police Force in order to improve work performance, remove barriers and allow all the staff to interact easily with each other in a formal and informal manner. The questionnaire results appear to suggest that employees believe that knowledge sharing is achieved in this manner within the organisation. Question 27 addressed the issue of the way in which senior staff in the organisation share work experience with other employees. 62% of participants agreed that this occurred regularly within the workplace (see fig.4.23). As discussed in the literature review, there is often a barrier between employees and senior management within large organisations. This can result in a number of disadvantages, including reduced productivity, lack of effective communication between different groups of employees, and a lack of knowledge sharing. However, it appeared that the majority of participants did not perceive this to be a problem within the Dubai Police Force. Finally, the survey also revealed that the Police Force regularly made use of experts, who were invited to share their experiences with the rest of the organisation, with 74% (n=95) stating that they agreed or strongly agreed with the statement (see Figure 4.11).

Invites experts to share their experiences

6.98%
1.55%
17.83%
23.26%
50.39%

- Disagree
- Strongly Disagree
- Neutral
- Agree
- Strongly Agree
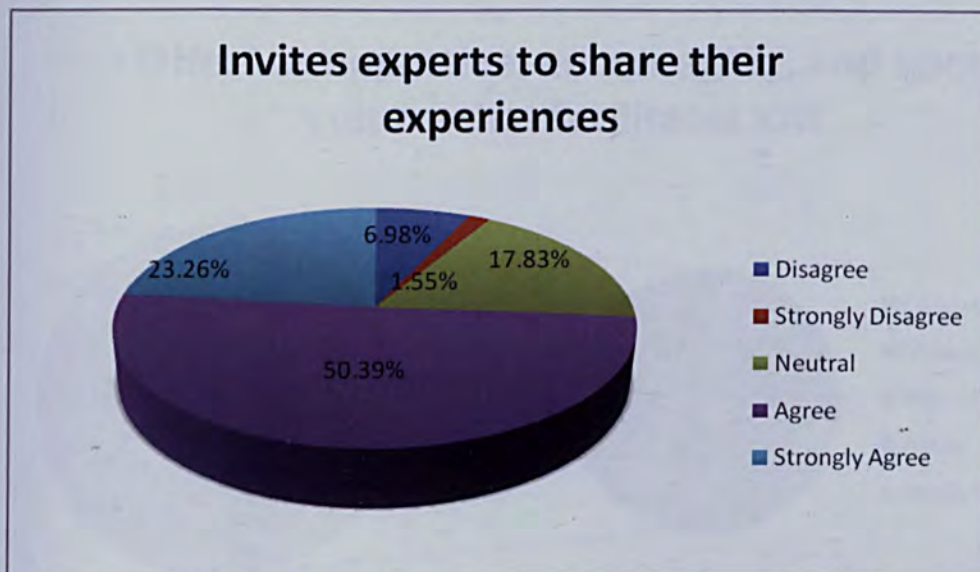
Figure 4.11: Question 28: Dubai police invites experts to share their experiences to make the employees more knowledgeable and efficient

4.1.7. Organisational Structure and Culture

The final section of the survey questioned participants about the overall organisational culture and structures related to knowledge management. The responses to this section of the study were generally less positive and less conclusive than the responses to other parts of the survey. Although the majority of participants (73%, n=69) agreed that the employees of the organisation know the value and importance of knowledge management, a quarter of participants (26% n=33) answered 'neither agree or disagree'. Moreover, when asked to respond to the statement "Dubai Police Force offers a supportive, encouraging and open culture that facilitates knowledge management", 30.2% of participants (n=39) stated that they disagreed, or strongly disagreed" (see Figure 4.12).

Offers a supportive, encouraging, and open culture that facilitates KM

Legend:
- Disagree
- Strongly Disagree
- Neutral
- Agree
- Strongly Agree

Values shown: 22.48%, 6.20%, 47.29%, 24.03%, 37.21%, 10.08%
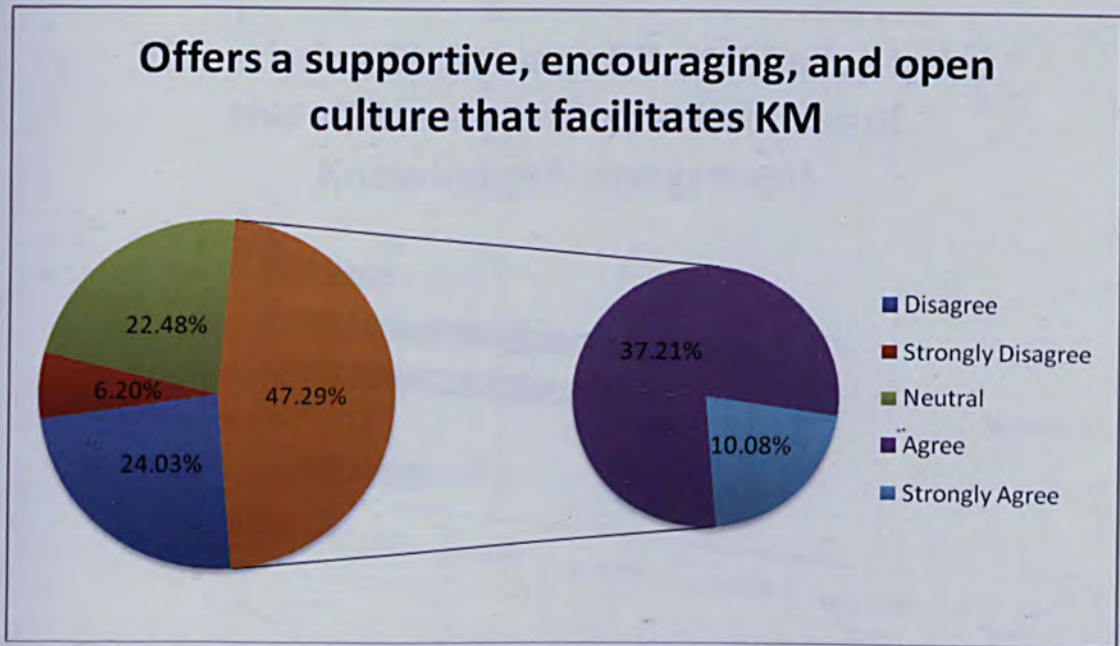
Figure 4.12: Question 31: Dubai Police Force offers a supportive, encouraging, and open culture that facilitates knowledge management

However, 67% of participants disagreed, or strongly disagreed with the statement 'sharing knowledge between individuals may lead to distrust amongst them', indicating that employees recognise some of the positive aspects of improved knowledge management

In response to questions concerning the structural organisation of the Dubai Police Force, participants appeared to agree with the idea that it has explicit work rules and policies, with 61% of participants responding with 'agree or 'strongly agree. This demonstrates that employees feel like they have access to basic information about working rules and organisational policies. Finally, participants indicated that the structure of the Dubai Police Force is conducive to efficiency and effective knowledge management (see Figure 4.13).

The existing Structure of Dubai Police helps the efficiency and effectiveness of Knowledge Management
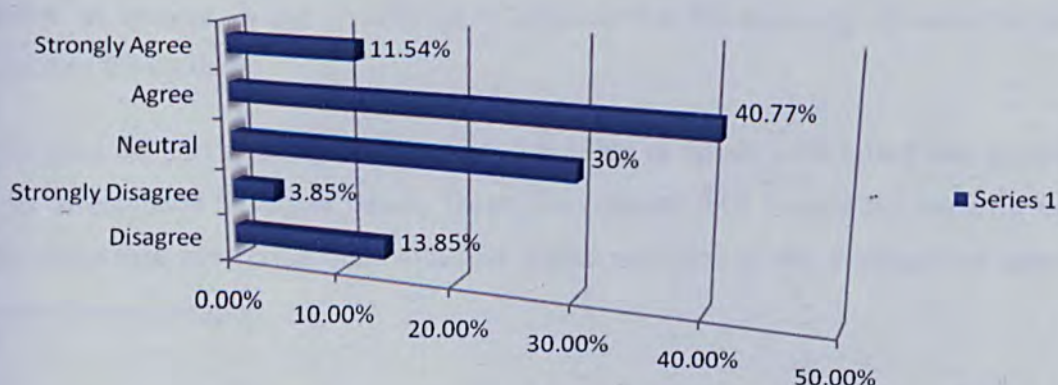
Figure 4.13: The existing Structure of Dubai Police Force helps the efficiency and effectiveness of Knowledge Management

4.1.8. Summary

The interview results evidenced a clear schism between employees who participated in the survey. The majority of participants (around three quarters of the total) expressed largely positive views regarding the knowledge management structures and processes in the Dubai Police Force. These participants tended to support the view that knowledge was highly valued in the organization, that the organization understood the value of tacit knowledge among employees, and that there were effective practices to ensure that knowledge was disseminated across the organization. However, a small minority of employees consistently disagreed with the proposed statements, indicating the opposite perspective. There were no statistically significant characteristics among this minority, which included a cross-section of genders, age groups, educational background, and level of responsibility within the organization. As a result, these findings require further investigation in order to understand why certain individuals did not believe that the organization has effective knowledge management structures in place. In addition to this, the results demonstrate a high level of consistency throughout the answers, i.e., participants tended to adopt either a

highly positive or a highly negative perspective. It may be the case that many participants were eager to present the organisation in a positive light, and were not reflecting thoroughly on the questions at hand. It may also indicate that there was some confusion regarding the meaning of the questions, or because they were highly similar in content, found it difficult to differentiate the meaning of some of the questions from others.

Following the survey analysis, therefore, a number of issues were raised that needed to be investigated in further detail. These observations then formed the basis for the interviews that were conducted with four senior members of the management teams across the organisation.

4.2. Interview Results

This section presents the results of the qualitative data collection, primarily gathered through structured interviews (see appendix 3) with four members of the management team in the Dubai Police Force. Interviews took place following the qeustinnaire analysis and prior to the researcher's own observations of the Police Force.

4.2.1. Participant Description

Interviews were held with two department managers and two department supervisors. The individuals that were chosen for this interview were from the general departments in Dubai Police Force as shown in Figure 4.14 below. From these general departments, two interviewees were drawn from the Supportive Departments of Dubai Police Force and the other two were from the Core Business Departments of Dubai Police Force, as shown below in Figure 4.15 below.
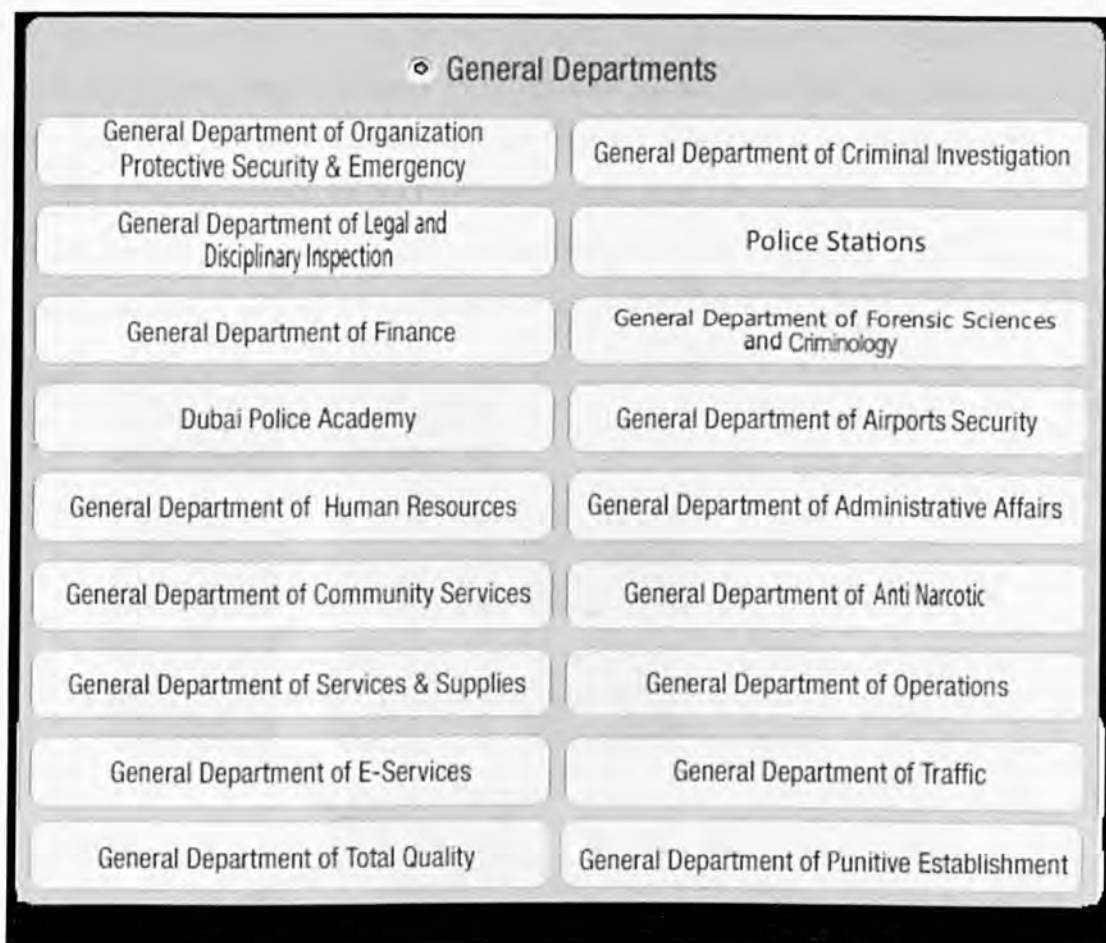
Figure 4.14: General Departments in Dubai Police Force

One individual was selected from the General Department of E-Services (GDES), which handles all the electronics in the organization through the computer and internal and external software, forming a totally electronic government in Dubai. The current knowledge management system is run and monitored by the The General Department of E-Services with the assistance of all the other departments, and the General Department of Human Resources (GDHR), which is another department from the Supportive Departments of Dubai Police Force. The General Department of Human Resources deals with the administration, hiring and promoting, management, and training of personnel, and is responsible for inputting information in the Knowledge Management System. The other two departments that were chosen from the Core Business Departments of Dubai Police Force included The General Department of Criminal Investigation (GDCI), which is the primary crime fighting department that deals with investigating the crimes in the country such as rape, money laundering, quarrels, robbery, kidnapping and murder. The other selected department

was the General Department of Operations (GDO). This department is the heart of the force; it handles all emergency issues, in addition to all the telephone lines, directing and managing both car and foot patrols. Furthermore, this department carries out the search and rescue operations on land and sea for the Dubai Police Force. Those two departments handle major parts of the force and the information they have and obtain is critical to the functioning of the entire police service in Dubai.
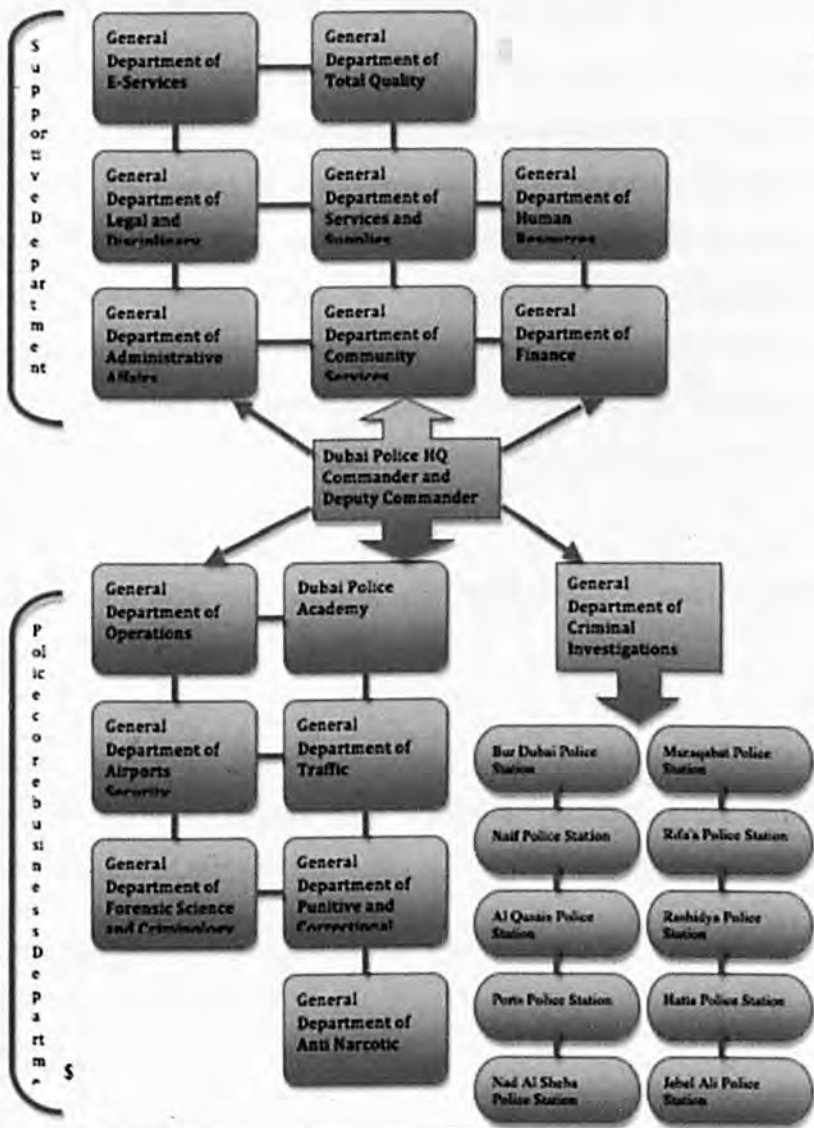
Figure 4.15: Supportive and Core Business Departments in Dubai Police Force

The interviews were conducted in a structured format, in order to facilitate comparison between the four participants' responses. All participants were asked the same questions, but were encouraged to add extra information, and to raise any aspects not discussed by the researcher. The questions aimed to uncover the

participants' perceptions of the current knowledge management systems in the Dubai Police Force, areas of particular strengths and weaknesses, and avenues for improvement. The results presented below follow a thematic analysis, based on the high level codes identified during the analysis process.

4.2.2. Overall Perceptions of Knowledge Management in the Organisation

All four participants were generally highly positive in their view of the existing knowledge management systems and processes in the Dubai Police Force. There was an extremely high level of awareness of the importance and utility of knowledge management at a strategic level. Each participant made reference to the notion that knowledge management was a critical factor in improving organisational performance, and identified knowledge as a strategic asset within the organisation itself. The Supervisor of Operations (SoO) emphasised the fact that knowledge alone was not a sufficient asset, but rather needed to be accessed and used effectively in order for it to become an asset:

"Knowledge is an asset to anyone, if they know how to use it" (SoO).

In addition to this, the General Manager of E-Services (GMoES) and the General Manager of Criminal Investigation (GMoCI) referenced the importance of using internal and external networks in order to mobilise knowledge.

"Knowledge is a key asset, which is why we have both old and new data stored in our network" (GMoES)

All participants were particularly anxious to emphasise that the Dubai Police Force had a proactive and exemplary approach to knowledge management. This eagerness to demonstrate that the Police Force was particularly adept at manipulating and managing data within the organisation may have led to considerable bias in the responses, particularly with the General Manager of Criminal Investigation. He tended to emphasise the organisation's wider achievements rather than speaking

specifically about the knowledge management practices, possibly in an effort to ensure that the organisation was well represented to the researcher.

> "*Of course it* [knowledge] *is an asset to Dubai Police Force, because of knowledge Dubai Police has a reputation that it is one of the best Police Forces in the world for having peace in the country and solving criminal cases (like robbery, drugs, murder, rape, etc) and we are connected to the Interpol*" (GMoCI).

The only participant who raised concerns about the organisation's overall attitude towards knowledge management was the Supervisor of Human Resources (SoHR). He mentioned that there was a greater need to make use of knowledge as a strategic asset and hinted at the potential barriers to knowledge sharing that exist between departments in the organisation.

> "*From the feedback we get back from the departments that they would like to improve the distribution of in the force because they would like to make better use of it*" (SoHR)

When asked about the potential drawbacks or risks associated with sharing knowledge within the organisation, all of the participants disagreed, and cited the many advantages associated with sharing knowledge. This indicates that all four participants had a good understanding of the benefits of knowledge management, but perhaps suggests that they have not fully considered the challenges associated with implementing knowledge management frameworks and strategies.

> "*No there aren't any issues, sharing knowledge actually reduces cost, saves time and helps motivate others and inspire them to work harder and better. It builds competition between employees in my department*" (GMoCI).

> "*Sharing knowledge has many benefits for Dubai Police Force and there are no issues that you stated in your question*" (SoO).

"There are no issues and sharing knowledge actually helps save cost, time and helps motivate others" (GMoES).

"There aren't any issues with regards to sharing knowledge between the employees in Dubai Police Force, sharing knowledge is beneficial for every single person in this organization" (SoHR).

Whilst these findings positively suggest that the senior management has a clear idea of the benefits and advantages of effective knowledge management, it perhaps indicates a degree of complacency with regard to the existing knowledge management practices within the Dubai Police Force and a lack of awareness of the difficulties of properly managing both explicit and tacit knowledge within the organisation.

4.2.3. Existing KM Systems

Participants were asked to describe the existing knowledge management frameworks within the Dubai Police Force. The participants agreed that there was a comprehensive knowledge management system in place.

"Of course Dubai Police Force currently has Knowledge Management System in the organization" (GMoCI).

Some participants pointed to the responsibilities of their specific departments, namely, within Human Resources and the E-Services departments.

"With support of the E-Service department and through the Networking and Telecommunication, Dubai Police is able to manage Knowledge Management in the force" (SoO).

"Of course Dubai Police Force has a Knowledge Management System in the force, we are using the intranet to store and manage knowledge" (GMoES).

"Knowledge Management is available in the organization, this is how we monitor staff performance and send out messages out to the staff" (SoHR).

In particular, the participants pointed to the way in which knowledge was gained in historical cases, and then re-applied in new context to assist in solving crimes. The General Manager of Criminal Investigation offered two examples of this, and asserted that historical knowledge was regularly applied in day-to-day case work, in addition to enabling interaction with external sources of knowledge and information.

"Knowledge from previous cases [was used] to solve two major cases in Dubai using previous knowledge to help us solve the those issues. One was the Graff robber in Wafi Mall and the other was the assassination of Mahmoud Al Mabhouh, the Palestinian politician, also interacting [sic] with Interpol for both cases"(GMoCI).

The notion of co-operation with external or international bodies was regularly raised by the participants, who pointed to the way in which external knowledge was regularly mobilised in order assist in the operations of the Dubai Police Force.

"Yes we do share knowledge for example we receive knowledge and work on helping other police forces from around the world. Since we have a connection with Interpol when any criminal from around the world enters our country we make sure to capture and send them to the county they escaped from" (GMoCI).

"We share information when necessary to help capture criminals" (SoO).

"Dubai Police Force shares knowledge with other police around the world to solve cases" (GMoES).

"As per the departments in the force they have mentioned in meetings that they share knowledge between them to help security in our country and other countries when asked" (SoHR).

The participants suggested that existing knowledge management mechanisms were widely utilised among the employees of the organisation, and that the Dubai Police Force made effective use of the existing knowledge within the organisation.

"They [employees] *do use knowledge in Dubai Police Force to the advantage of improving their work"* (GMoCI).

"The company is taking advantage of knowledge for work purposes" (GMoES).

The participants also referenced the types of technologies that were typically mobilised throughout the organisation to assist in knowledge management. They focused on communication devices and the intranet as key resources in the knowledge management process.

"With the support of the General Department of E-Services and Networking and Telecommunication, the different types of technologies used in Dubai Police Force are: the computer, internet, intranet, and walkie talkies" (GMoCI)

"The different types of technologies used in Dubai Police Force are through electronics like the computer, internet, intranet, and walkie talkies and many more" (GMoES).

"There are many different types of technologies used in Dubai Police Force" (SoHR).

However, despite this, when questioned in more detail about the specific ways in which employees share knowledge across departments, or in their day-today operations, the participants acknowledged that the employees could be encouraged to improve their knowledge management practices. In relation to this, participants indicated that the employees do not always make effective use of the technologies, and that better habits needed to be instilled among employees in the Force.

"Training must be done for all the staff so they learn and make it as a habit to have regular meeting to share knowledge and experiences plus make it as a default action to input every detail to the internal system regardless how small it is" (SoO).

"Looking into the intranet and the files that need is accessible between all the employees in Dubai Police Force, to be honest not all officers input their

experience into the system where it could be shared by other colleagues" (GMoES).

The diagram below illustrated the current KMS. As can be seen in Fig 4.16, knowledge is driven from Human Resources and E-Services:
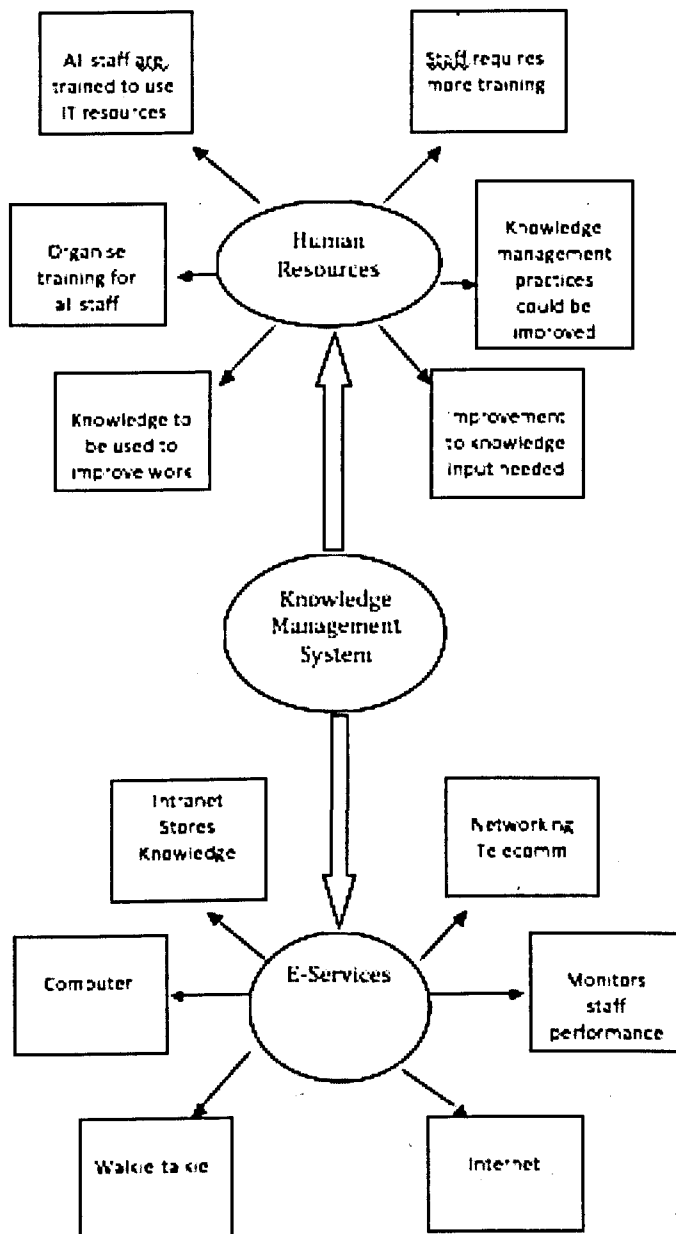
Figure 4.16 Current KMS

4.2.4. Training and Resources

The interviews demonstrated, therefore, that although the participants were highly positive about the knowledge management structures and technologies within the force, they were not always effectively mobilised by employees. In many cases, this appears to have been the result of deficiencies in training for staff members. The participants were asked about the existing training mechanisms for staff in relation to knowledge management, and the responses elicited contradictory results. The General Manager of Criminal Investigation, in particular, was keen to emphasise the lack of problems in the system and the presence of effective training mechanisms for staff.

"There are no problems that are faced by Dubai Police Force in using IT for Knowledge Management" (GMoCI).

"Everyday the employee gets trained because everyday they learn something new, however with regards to proper training this is organized by Human Resource Department" (GMoCI).

"Everyday the employee gets trained learning new things" (GMoES).

"There are no problems and everyone in Dubai Police Force are trained to use any IT technology" (SoHR).

However, other participants raised concerns about the extent and effectiveness of the existing training mechanisms, suggesting that improvements needed to be made in order to ensure that staff are trained to use the knowledge management systems in place.

"Management are concerned about training staff, however the training sessions are not enough and staff need to be trained more" (SoO).

The Supervisor of Human Resources explained some of the problems in the existing training system, suggesting that new employees did not always receive effective training.

"The upper management are concerned about training the staff, they are taken to training when the managers of each department feel the employee needs to be trained and be more effective, so there is no special time however when they first start working in Dubai Police Force they get trained intensively in order to catch up with their fellow colleagues" (SoHR).

This points to an important deficiency in the existing system, as it appears that new staff are not always given a period of intensive training, particularly in relation to knowledge management processes, which are not always valued as highly as other more immediate training needs. In order to improve the use of existing knowledge management systems and resources, staff must be properly trained upon recruitment in order to ensure that key knowledge is not lost.

In addition to in-house training, the participants described the use of external experts who were brought into the organisation to train staff.

"Dubai Police Force invites experts to share their experiences to make the employees more knowledgeable and efficient" (SoO).

"Dubai Police Force invites experts to share their experiences with the staff" (GMoES).

"Our department invites experts to share their experiences to make the Dubai Police Force employees more knowledgeable" (SoHR).

This represents an important step in the existing knowledge management system, in which knowledge creation is effected through the use of external sources. However, if there are insufficient training mechanisms in place for employees to share and utilise knowledge, these new sources of knowledge will not be repurposed and utilised effectively.

4.2.5. Conceptions of Knowledge: Tacit and Explicit Knowledge

The interviews demonstrated that although participants had a good conception of the importance of knowledge management, and the difference between explicit and tacit knowledge, they appeared to place a greater emphasis upon explicit forms of knowledge. For example, all of the participants made persistent reference to stored knowledge and methods of capturing and accessing stored knowledge.

"It's important to use stored knowledge to cut cost and not waste time solving new cases" (GMoCI).

"Stored knowledge is useful for every individual in Dubai Police Force" (SoO).

"Some officers don't input into the system their experience that can help others to solve some cases so the stored knowledge are not enough to help all officers" (GMoES).

"Stored knowledge helps us retrieve vital information when necessary" (SoHR).

Tacit knowledge, present within employees, as discussed in the literature review, is one of the most important sources of organisational knowledge. Within the Dubai Police Force, it appears that there is currently little recognition of the importance of tacit knowledge and the means by which it may be extracted and utilised within the organisation. As a result, the framework developed in this study needs to ensure that all forms of knowledge, explicit and implicit are valorised throughout the organisation and are effectively mobilised.

4.2.6. Role of Senior Management

Another prominent theme that emerged from the interviews was the role that senior management plays in improving knowledge management processes in the organisation. Some of the participants raised the issue that senior management needs to take a stronger leadership role in order to continually improve the current knowledge management system.

"Senior management need to focus more on the current Knowledge Management System and think of ways to improve it" (SoO).

In addition to this, a number of the participants raised the issues caused by long waiting times for approval from senior management. It appears that many obstructions are caused due to the hierarchical systems that demand that actions are approved by senior management, and this provides a significant barrier to effective transmission and sharing of knowledge throughout different departments in the organisation.

"The long approval of upper management is a major barrier" (SoO).

"The long approval of upper management is a major barrier" (GMoES)

"I would like upper management to reduce the approval format, because it takes a long time for the officers to take action until they obtain the approval" (GMoCI).

"One thing that must be changed is speeding up the approval process in order for the employees to start working up to speed and resolving matters faster" (SoO).

4.2.7. Attitudes to Change

The participants in the interviews were asked about the need for change in the Dubai Police Force. Almost all of the participants stated that there was no need to change the current system, except for the General Manager of E-Services, who spoke of the general need for change.

"With regards to the Knowledge Management System in Dubai Police Force, it is very good and there is no need to complicate and confuse the employees with a new system" (GMoCI).

"The knowledge management system in Dubai Police Force doesn't need to change" (SoO).

"It is required to highlight to upper management that the current system is good in Dubai Police Force, however the whole world is changing and technology is improving everyday. It would be a great idea to improve and enhance the current system in the force to enhance and improve everybody's work performance" (GMoES)

"The current system is great and there is no need to change it" (SoHR).

This indicates that the majority of participants feel that there is no real need for change within the current knowledge management system in the Dubai Police Force. This suggests that implementing new changes may result in obstruction because employees do not necessarily understand the need for changes to the knowledge management system.

4.2.8. Organisational Culture

In general, the participants indicated that there is a strong culture that values knowledge management within the Dubai Police Force.

"The culture is supporting Knowledge Management" (GMoCI).

"If there will be a change in the Knowledge Management System the staff will support it more" (SoO).

"I presume that the culture supports Knowledge Management" (GMoES).

"The overall culture seems to support the current Knowledge Management System" (SoHR).

However, the Supervisor of Operations highlighted that changes in the knowledge management operations could result in greater levels of support among the employees.

"If there will be a change in the Knowledge Management System the staff will support it more" (SoO).

4.2.9. Summary

The interviews, therefore, like the survey results, demonstrate that there is a widespread perception among employees and management in the Dubai Police Force that the existing knowledge management structures are well-established, functioning properly, and do not need widespread reform. In the interviews, all four participants praised the system and the current working environment, perhaps revealing personal biases and a wish to preserve the reputation of the organisation. When the concept of knowledge management was explained, in more detail, the respondents immediately became more open to the idea of increasing the use of knowledge management structures, across the police force. It can, therefore, be argued that one of the main barriers to the responsiveness to knowledge management changes is to ensure that individuals understand exactly what is meant by knowledge management, so that they can see how they benefit from it, personally.

However, the interviews also evidenced a number of issues in the current knowledge management system within the Dubai Police Force. There is a need for better training, particularly among new employees, in order to ensure that employees are inputting information and knowledge into the existing systems, and know how to extract knowledge when appropriate. Furthermore, there appears to be an organisational bias towards explicit forms of knowledge as opposed to tacit knowledge, which perhaps suggests that tacit knowledge among the employees in the Police Force is being overlooked in the current knowledge management process. It appears that greater efforts need to be made by senior management to ensure effective training for employees and to ensure that the knowledge management system continues to develop. In general, participants appeared to view knowledge management as a static process, rather than one that needs to evolve dynamically. This evidences a broader cultural attitude to knowledge and knowledge management that may pose barriers to implementing the new knowledge management framework. In this respect, the role of the management team will be much more instrumental than was originally hypothesised, particularly in encouraging the use of a knowledge management system

throughout all departments. From the survey and observation, it became evident that the individuals on the ground were heavily influenced by their manager's approach and when the manager was not particularly engaged about the administrative tasks, neither were the other employees. These factors will be taken into account in the development of the framework and the implementation plan.

4.3. Personal Observation Results

In addition to the data collected above in the surveys and the interviews, observations of four different departments were undertaken by the researcher. The observations took place over a period of three weeks, and were envisaged as passive observation, in which the researcher attempted to disrupt and impact upon the day-to-day activities of the organisation as little as possible. The departments that were chosen to be observed were from the general departments in the Dubai Police Force. Two of the departments were from the Supportive Departments of the Dubai Police Force (The General Department of E-Services and The General Department of Human Resources) and the other two were from the Core Business Departments of the Dubai Police Force (The General Department of Criminal Investigation and The General Department of Operations) (see Figure 4.14 above). My objectives from using an observation methodology was to physically oversee the human input, interaction and verbal exchanges between members of the Dubai Police Force. My task initially began in the Human Resources department in order to establish how knowledge is communicated between the staff members. This department is primarily involved with communicating information amongst their audience and it was my task to verify: (i) What this information was contained in this knowledge; (ii) the recipients of this knowledge; (iii) how this knowledge is used and; (iv) the feedback from this knowledge which would provide an indication as to whether or not the contents of the knowledge was understood, useful or acted upon. I then conducted a short interview with the Human Resources manager to assess their perception of this knowledge sharing which indicated to me how they saw the relevance of their tasks. I performed similar exercises with the other departments by observing their day to day communication and contents of their verbal and online exchanges.

4.3.1 Observation Strategy and overall observations

When observing the departments (the General Department of E-Services, the General Department of Human Resources, the General Department of Criminal Investigation and the General Department of Operations), the departments were only observed from the back office and not following the practical operations. This was due to the fact that it would have been considered to disruptive to accompany employees in the field. The observations were intended to act in conjunction with the surveys and interviews, allowing the researcher to compare participant perceptions of the way in which knowledge management currently operates within the force, with the day-to-day operations as observed by the researcher. The observations were particularly targeted at a number of issues that had arisen from the surveys and interviews. Primarily, they focused on identifying the ways in which knowledge was shared between departments and groups, and how this knowledge sharing was effected. It also aimed to address some of the issues identified with respect to the use and appreciation of tacit knowledge, rather than simply focusing on technologies and strategies for explicit knowledge within the organisation. Particular attention was paid to the role of senior management in facilitating knowledge management and creating a supportive environment that would enable employees to effectively share and make use of organistional knowledge. The observations were recorded using a notebook, and at the end of each day the researcher would read over the notes and add a personal reflection on his own participation and the implications of the observations for the wider study. The reflections then proved important in framing and directing the observations on the subsequent days.

4.3.2 Observations from day-to-day tasks

In the General Department of E-Services, employees would come in to work on time and exchange shifts with each other to carry on the routine they have been doing, handling all the electronical issues in the Dubai Police Force and organizing the internal system. An effective handover was completed with every staff transition. In addition to this, the employees were seen to consistently update the current knowledge management system with new information on a daily basis. The employees were generally satisfied with their work and appeared to be happy with the

current knowledge management structures within the organisation. However, many employees in this department did note that, while observing the system and viewing if other departments were inputting their new experience, it became apparent that the other departments in the force were not sharing vital information and inputting it to the system. This led to tensions between departments and frustration, particularly in the General Department of E-Services, who felt that their work in maintaining the knowledge management system was not valorised by the organisation at large. It may be that this department, which has responsibility for the main knowledge management technologies in the organisation, was more deeply invested in the knowledge management process as a by-product of their role within the Police Force. In comparison with the other departments, the Department of E-Services appeared to be much more effective in maintaining and updating knowledge management systems.

4.3.3 Observation from the Human Resources (HR) perspective

In the General Department of Human Resources, the daily operations were much less active and busy than the other departments. Furthermore, employees appeared to be far less invested in their work: they would come in do their basic work of administration and management then leave immediately when office hours were over. One of the responsibilities of the Department of Human Resources was to organise training courses for employees, but the department did not seem particularly proactive in relation to this. They only sent employees on training course when the department head would call and request it, but in addition, this was often subject to long delays regardless, they obtained approval from upper management. This system of approvals (raised in the interviews above) did appear to be a major source of frustration for employees, who felt that any efforts to attempt to get things done were often thwarted. This in turn led to frustration and apathy, meaning that employees seldom actively pursued new initiatives unless it was subject to an explicit directive. This situation appeared to have direct implications for the knowledge management within the organisation, particularly in relation to staff training. The Human Resources Department needs to take responsibility for staff training and actively pursue opportunities for staff to develop themselves professionally, which in turn would bring new knowledge into the organisation. However, the widespread apathy in

relation to systemic obstructions caused by the approval policy appears to be inhibiting staff training and development.

4.3.4 Observations from the Department of Criminal Investigation

In the General Department of Criminal Investigation, employees in the field would seldom come into the office to talk about their experiences and the knowledge gained in the course of investigations. This suggests that vital knowledge is being lost that could prove to be useful in future investigation, or for the prevention of crimes. Particularly within the police force, which is distributed over a large area, it is increasingly important to ensure that knowledge distributed throughout the force and based on individual cases is somehow brought back in order to allow that knowledge to be reused in other circumstances. Within the Department of Criminal Investigation, it was apparent that the distributed nature of the personnel, and the lack of measures to ensure that knowledge was stored centrally and then shared throughout the department, was leading to a loss in important knowledge based on historic cases.

4.3.5 Observations from the Department of Operations

The final department to be observed was The General Department of Operations. This department was very busy and all members were very active. There are around 2000 landlines that are answered in response to citizen calls, and they handle the emergency responses, and as well as search and rescue operations on land and sea for the Dubai Police Force. As in the other three departments the employees seemed to obtain and search for information that only benefited themselves and their immediate requirements and didn't seem motivated to make extra efforts to share knowledge, despite the heavy workload borne by the department. When looking at how the individuals operated, on a day-to-day basis, there appeared to be very little understanding of the role of the other departments and a general unwillingness to work together with other departments to achieve a combined result. With this in mind, issues of teamwork and integration of all the different departments with each other emerged as a central issue. This needs to be resolved before bringing in a knowledge

management system, which works on the presumption that all departments are co-operating.

It seems therefore, that the Department of Operations had an insular approach to knowledge and knowledge sharing. Employees were skilled in seeking out knowledge if and when it was required, but this 'knowledge at the point of access' contributed to a loss of information from other departments that may have been useful in day-to-day operations. Furthermore, there was a predominant feeling of the existence of a need-to-know protocol, with individuals given access to information only when they really needed it. This points to wider cultural problems throughout the organisation, which views knowledge as a resource to be mobilised at will, but which does not take into account multiple forms and sources of knowledge that are not explicitly targeted. This raises the difference between information and knowledge. Individuals within the police force clearly saw the value of information that would help them in their work, but did not view such information (or their own knowledge and experience) as organisational knowledge that could be a resource for the entire Police Force. As a result, employees saw little benefit in sharing their own knowledge and experience, either with their colleagues, or across departments. At one point during the observations, in which some individuals were shadowed in their day-to-day work, it became apparent that they were only recording information that they thought would be beneficial to themselves, in the future. This could be a real barrier to the use of a more extensive knowledge management system, as individuals have become inherently self-centred in their operation.

4.3.6 Overall conclusion from departmental observations

The observations demonstrated that the senior management are not appropriately motivating employees to develop their knowledge acquisition, which is reflected in the employees work performance, and unwillingness to look for changes and better ways to improve their own work performance. Employees are largely apathetic in relation to the use of knowledge and the processes of knowledge management. These management issues are compounded by the fact that the management structure makes it very difficult for decisions and actions to be approved quickly. This contributes to delays and negatively impacts upon organisational performance, in addition to

obstructing knowledge diffusion throughout the different departments of the Dubai Police Force. Furthermore, the observations demonstrated that there was very little cross-departmental communication and sharing of knowledge. Employees are not encouraged to link facts, data, and previous experiences together across the different parts of the Police Force.

High level centralisation in the Dubai Police Force appears to be a systemic problem that causes delays and a number of negative outcomes. These include employee frustration, a lack of initiative and self-directed endeavours among the workforce, and a lack of motivation among employees. As a result, the employees are not using historic data within the organisation, which results in unnecessary time consumption, delaying work submission on time and wasting their efforts to re-research again and solve new cases from scratch. Employees often fail to share vital knowledge between each other that could help them benefit for the future cases. Employees are generally not motivated to input new information into the system, describing what they benefited from the cases and experience that they gained. This is a major point of knowledge loss, and must be addressed in future KM implementation. Each employee is only responsible for their own work and are not motivated to coordinate with other colleagues. Finally, employees are dissatisfied with the lack of training and development that they get from management, and there is a distinct lack of training for middle management employees. All of these factors indicate that organisational productivity is being distinctly hampered by a lack of effective knowledge management and sufficient organisational structures.

The observations, therefore, shed considerable light upon the current use of knowledge management techniques and strategies within the Dubai Police Force. They demonstrate that the employees who took the survey, and those who were interviewed, were largely over-positive about the knowledge management processes within the organisation. Rather, the observations evidenced a number of key areas for improvement, including better knowledge sharing methods and strategies, the removal of institutional barriers to knowledge sharing, and refocusing the organisational culture to value different forms and sources of knowledge. The following section will discuss the implications of these findings in the wider context of the research.

4.4. Discussion

The survey, interviews and observations yielded very different results in relation to the existing knowledge management structures in the Dubai Police Force. The employees appeared to suggest that the existing knowledge management structure were sufficient and effective for the current needs of the organisation. Furthermore, they appeared to indicate that there was an explicit culture in which knowledge creation and sharing was valued within the organisation. However, the observations did not correlate with the perspectives of the employees investigated in this study. Rather, they demonstrated that there are significant limitations to the existing knowledge management practices in the Dubai Police Force, and considerable avenues for improvement. The employees may have wished to present the organisation in a positive light, but it is also possible that there is a lack of awareness of the ways in which knowledge management could be improved.

After reviewing the finding from the questionnaires, interviews and personal observation, it is apparent that there is a clear need for more effective knowledge sharing strategies in the Dubai Police Force. To a large extent, preliminary findings have supported the literature review previously undertaken, but have also added an additional human dimension to the theoretical study of knowledge management. Whilst much of the literature review focused on how knowledge management can assist an organisation, it does not deal with the barriers that may exist, from a personal point of view, and these barriers could, ultimately, result in the failure of the structure, even if it is inherently, and theoretically, very robust. In the case of the Dubai Police Force, the principal barrier to more effective knowledge management appears to be the fact that many employees simply do not see the need for improvement.

Although some reluctance to change was demonstrated, particularly from the older respondents (those who have reached the retirement age in Dubai Police Force) who feared they would not necessarily be able to use updated, computerised systems, the difficulty was much more deeply rooted in the culture of the organisation, where the individual departments were simply not willing to help each other. There is an increasing pressure placed on the individuals to achieve results within their own department, which results in them working for their individual benefit, and not for the benefit of the organisation as a whole. As a result, the senior management needs to

take a close look at the way in which they motivate individual staff members, before they bring in a KM system that requires a high level of co-operation. Proper training and justification for the changes to be made need to be presented to all of the employees, in order to allow them to become engaged and invested in the new system. It also became apparent that knowledge management does not necessarily need to centre on a highly structured, computerised system and that it could be involved in cross-departmental meetings, on a regular basis, as the main deficiencies in knowledge management appear to be derived from a lack of communication across departments. Therefore, there needs to be consideration as to whether or not other ways of bringing the departments together could be used, alongside the new structure. Within the existing structure, within some departments, there *is* a strong awareness of the importance of knowledge management, but this is often construed in limited terms, focusing on specific types of knowledge, as easily represented as explicit knowledge. There is very little appreciation of the way in which tacit experiential knowledge is an organisational asset, and may be mobilised throughout the Police Force.

These findings indicate that the principal barrier to improving knowledge management within the Dubai Police Force is the opposition to change from within the management teams, and throughout the organisation as a whole. This, in turn, is derived from a broader organisational culture that does not value knowledge sharing as a critical tool and asset, and in which employees are focused on individual achievements. As a result, in order to effectively improve knowledge management within the Dubai Police Force, a large scale change must be effected through education, training and a shift in values in the organisation. There are a number of strategies that may assist in this, including better leadership from senior management, and the introduction of incentives for employees to populate knowledge management system. Additionally, implementation could be facilitated by recruiting individuals who were explicitly focused on knowledge management, and this would also demonstrate an organisational commitment to, and valorisation of, knowledge management as a whole. Finally, one of the most important aspects within any new system must be a mechanism in which employees are able to see the benefit in properly utilising knowledge management systems. This is likely to increase

motivation significantly, and will encourage employees to be more proactive in inputting data into the system.

4.5. Summary

These findings suggest that there are potentially tangible benefits that may be accrued by establishing a more effective KM system within the Dubai Police Force. Tangible benefits are those which can be quantified, often in monetary terms. In this case, this can be quantified in costs and savings and may include: (i) Saving time in terms of solving problems by the use of effective Knowledge Management Systems; (ii) saving the so-called 'man-hours' in solving issues and; (iii) saving the cost of solving problems. There are also tangible benefits, which can be seen in the confidence that the residents may have with the police force if they are deemed to be performing their tasks to their fullest potential. As success breeds success, better resources through financial means may be put into the system. This may be in terms of better e-based systems to ensure that knowledge is captured and stored, better training for HR who control the KM systems and more resources into physical systems of knowledge sharing, for example, lines of communication via walkie-talkies. A study by Shih et al. (2006) states that the supplier of knowledge tends to share knowledge is she/he believes that she/he can obtain a tangible benefit from sharing knowledge.

However, the interviews and survey indicated that there is potentially considerable opposition within the organisation to changes in the existing knowledge management system, and a number of key institutional barriers that prevent effective knowledge management. This points to cultural obstacles within the Police Force itself, which must be taken into account in the formulation of the new framework. The principal failures of the existing knowledge management system in the Dubai Police Force may be summarised as follows:

- lack of knowledge sharing within and across departments

- lack of inputting knowledge and information into existing knowledge management systems

- lack of awareness of the benefits of knowledge management among employees

- de-prioritisation of experiential, tacit knowledge in favour of more specified, explicit knowledge

- low levels of employee motivation

- organisational barriers to knowledge sharing

- lack of effective training and education for employees, both in knowledge management techniques, and through external and internal training courses related to their professional development. Concerns have been raised regarding a lack of co-operation between the departments and an unwillingness to work as a complete unit, and this will be a fundamental determinant of the overall success of the proposed KM system.

Chapter Five: The Strategic Ontological Police Force Knowledge Management Framework (SOPFKMf) within the Dubai Police Force

This case study sets out an analysis of, and general recomendations for, a KM restructure within the the Dubai Police Force in order to improve organisational performance. This section will describe the current KM practices utilised in the Dubai Police Force, establish the current problems facing the organisation, and will propose solutions in order to help restructure the KM system. It will outline in detail the proposed changes to be made within the organtization, the reasons that motivate these change, and the potential problems that will be encountered in implementing the new KM system. It is hoped that these changes will elicit a more effective and efficent work performance from all the staff in the Dubai Police Force. This case study will provide a comprehensive understanding of the problems, the solutions and the potential benefits of the new KM system in the force.

5.1. Case Study Findings

The Dubai Police Force is a govermental organization with numerous issues that affect employees' work performance. The organisation is currently not operating at full efficiency, and employees are ineffective and not fully responsive with regard to essential tasks. In order to glean a comprehensive insight into the issues that have affected the employee efficieny and workplace performance, this study has conducted a full organisational analysis. This analysis consisted of questionnaires that were distributed to a number of employees within the Dubai Police Force across different departments and ranks, in order to establish an overview of the situation. The analysis also consisted of interviews with departments and section managers following up on the issues that were highlighted in the questionnaire responses. In order to supplement this data collection, the researcher also recorded direct observations of the employees and managers in the Dubai Police Force. This personal observation consisted of observing the workflow in the organization whilst reflecting on the problems highlighted in the questionnaires and interviews. The case study is therefore based

upon a number of different data sources (questionnaires, interviews and observations) in order to triangulate the findings across multiple data points.

This study describes the organisational context and issues that characterise organisational efficiency and employee performance in the Dubai Police Force. It highlights problems and establishes areas for improvement in order to improve overall organisational performance. The case study methodology was selected in order to provide an analysis that takes into account the organisation *within* its cultural context. It is hoped that the study will provide actionable findings to enable senior management to achieve higher levels of performance in the workplace. From the questionnaires, interviews and personal obervations, it became clear that one of the major issues affecting performance in the Dubai Police Force was a deficit in the sharing of knowledge throughout the organisation. This issue has affected the employees' work performance and the ramifications are considerable enough to warrant immediate attention. After reviewing these setbacks, it was determined that the appropriate strategy to improve the organization's profitable success was to implement a new Strategic Ontological Police Force Knowledge Management Framework (SOPFKMF) within the entire Dubai Police Force, and to train all the employees as part of the implementation. The issues raised by the survey contributed to the decision on behalf of the senior management to adopt the framework in order to strengthen the use of knowledge within the organization, throughout departments and among the employees. The following aims were established:

- Improving work performance and taking the mission to a higher level of professionality, throughout the entire organization, through all the departments and employees.
- To achieve quality growth by:
  1. Settling the needs and demands of the modern police force to improve work performance
  2. Setting up a Strategic Ontological Police Force Knowledge Management Framework for Dubai Police to:-
     - Improve the use of knowledge within the organization
     - Increase efficiency within the Dubai Police Force
     - Create a more modernized system, capable of sharing knowledge throughout the entire entity

- Link between facts, data and experience
- Create a strong internal structure to facilitate the flow of knowledge within the organisation

3- Allowing effective understanding and management

4- Tackling issues such as: education, training, motivating employees to adapt to new strategy and become engaged in this new organisational context

5- Allowing the Police Force to concentrate and focus on both the physical activities and the knowledge flow throughout the organization, alongside the practical activities

6- Having all the different departments and all the different individuals working within the police force interact with each other and share the vital information throughout the entity

7- Creating leaner coordinations between departments to achieve an overall organization efficiency

8- Combining their own physical experience to utilized data and information that has been gathered

9- Improving overall quality level.

In order to encourage inter-departmental cooporation and full involvement in the New Strategic Ontological Police Force Knowledge Management Framework for the Dubai Police Force, the organization requires a training strategy for all of the staff members across the organisation, so as to ensure that employees are able to utilise the new framework, benefit from it, and ensure that it contributes to their work efficiency. The implementation of this new strategy will be a challenge for all the employees and managers working in the Dubai Police Force, who will be required to adjust their workplace practices to the new system. As a result, the senior management must aim to elicit the full commitment of all the employees to the strategy, to be able to take the organisation to a new level of growth and productivity following these systemic changes.

One of the significant facts about knowledge as noted by Matthews, is that "knowledge, as the postulation and practice of new relations and as an outcome of organizational processes, provides the greatest leverage for firms to survive, compete,

and conquer greater heights in the world of business" (Mathews, 2012: p.73). This, in addition to the literature discussed in Chapter Two above, clearly signifies the importance of knowledge within an organization. This means that sharing knowledge will provide greater leverage for the Dubai Police Force following implementation of the SOPFKMF and as a result, change must be implemented accurately in order to capitalise on its positive characteristics.

5.2. Rationale for Structural Changes

This study suggests that the implementation of a new KM framework will elicit significant improvements in organisational performance within the Dubai Police Force, although this approach necessitates significant effort and investment, and will require cooperation across the entire organisation. The primary reasons for requiring a new KM strategy are derived from the following observations:

- Lack of coordination between departments.

- Centralized style of management.

- Lack of strategic use of previous cases to inform subsequent practice.

- Unbalanced workloads.

- Many delays in solving cases due to attempts to solve new cases from scratch, rather than utilising previously acquired knowledge.

- Employees lack the sharing of vital knowledge between each other that may benefit investigation into future cases.

The major purpose of this change is to ensure that cases are solved efficiently by utilising knowledge and experience gained from previous cases. This is intended to ensure that costs are reduced by solving new cases swiftly using existing knowledge, rather than re-researching the same problems and solutions with every new case. In addition to this, the KM system will help to ensure that knowledge is shared, directed and repurposed effectively across departments and employees. It is apparent that some departments are repeating the same activities in slightly different ways, and it is hoped that this system will enable departments to co-operate effective to share similar

activities without repeating work unnecessarily. Furthermore, management styles need to be modernised, shifting away from a traditional centralised management approach. Finally, it is hoped that this framework will assist in raising standards and productivity across the organisation.

5.3 Nature of Change and Rationale

The proposed changes consist of the implementation of the SOPFKMF and the amendment of the existing main KM structure in the Dubai Police Force. Due to the traditional, centralized system historically utilised in the Dubai Police Force, the organisation has been tightly controlled and directed by senior management personnel. This change therefore proposes a major upheaval to the existing organisational structure, mobilising the entire workforce to ensure organisation-wide knowledge sharing. The existing KM structures and organisation of the Dubai Police Force is at present, very complex and slightly chaotic (see figures 5.1 and 5.2 below).

As illustrated in fig. 5.1, there are 18 major departments in the Dubai Police Force with sub-departments (see fig. 5.2) linked to these main departments. Having many separate departments is a way of defining roles; however, in terms of knowledge sharing between employees and across different departments it also presents a potential difficulty. Although the current protocol mobilises the intranet to circulate knowledge throughout the whole organization, which may be accessed by all employees, unfortunately, it lacks vital information that could be usefully exploited by officers. The current intranet network of the Dubai Police Force offers the following services for employees:

- The latest updates and news about Dubai Police Force.

- A staff profile, enables each employee to access his/her own profile to be able them to check for the latest updates when it comes to their salary, public holidays, rewards etc.

- Records of some historic cases

- The latest rules and regulations

General Departments	
General Department of Organization Protective Security & Emergency	General Department of Criminal Investigation
General Department of Legal and Disciplinary Inspection	Police Stations
General Department of Finance	General Department of Forensic Sciences and Criminology
Dubai Police Academy	General Department of Airports Security
General Department of Human Resources	General Department of Administrative Affairs
General Department of Community Services	General Department of Anti Narcotic
General Department of Services & Supplies	General Department of Operations
General Department of E-Services	General Department of Traffic
General Department of Total Quality	General Department of Punitive Establishment

Figure 5.1: Dubai Police Organization Structure (Dubai Police)

As presented in figs. 5.1 and 5.2, the Dubai Police Force has many departments that have their own designated responsibilities. However, there is very little sharing of vital knowledge that might prove useful for employees in other departments. The different departments tend to work in isolation, leading to some difficulties in accessing information and in managing and leader employees.
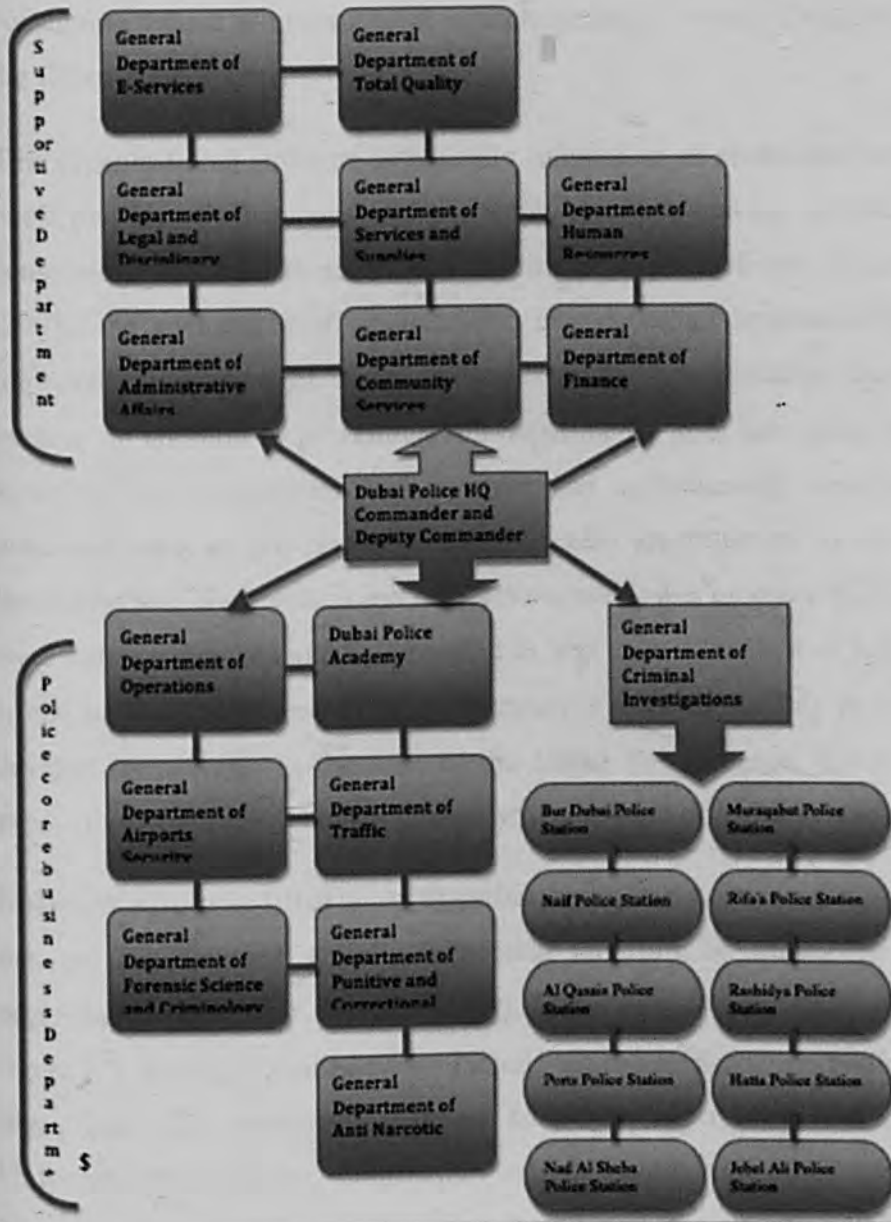
Figure 5.2: Supportive and core business Dubai police force structure before implementation of the new framework

As discussed in the literature review, centralised management structures typically mean that every employee is responsible for their own work. Unfortuantely, this often leads to lower levels of productivity and motivation, and frustrations with the hierarchical and traditional management structure. In the case of the Dubai Police Force, the practical consequences of this structure are that every single piece of paper has to pass through the manager of each department before going to an upper authority to for approval in order to complete the work. Unfortunatley this time-

consuming format of management is implemented for most, if not all, departments in the Dubai Police Force.

This organisational structure is typically referred to as centralised management, and has a number of advantages and problems. Decision-making is typically very time-consuming, and this can act as an impediment to productivity. As noted by Mullins (2005), the advantages of centralization include easier implementation of policies, improved economies of scale, greater use of specialization, improved decision making, in addition to preventing sub-departments from becoming too independent. However this centralized management has unfortunately resulted in negative outcomes such as self-centred employees who are reluctant to share information, frustration and low levels of job satisfaction, and lower productivity. If the employees were better connected and collaborated in less formal ways, it is suggested that they would be more motivated to invest themselves more thoroughly in their work and to develop themselves. In the case of the Dubai Police Force, it was noted that the productivity of employees was diminished as a result of low levels of motivation.

Košturiak also noted that most organizations concentrate on the physical activities that are implemented, thereby neglecting the flow of knowledge throughout the organization (Košturiak, 2010, p.51-63). In the case of police activities, as shown in figure 5.3, these physical activities include the processing of individuals, questioning, investigate and analysing criminal behaviour after they have been arrested. Unfortunately, however, information is not shared with other departments in the force, largely because it is assumed that it will not necessarily be useful. Every organization poses its own corporate governance, to establish the best practices for operational framework within the organization, which are typically implemented and managed by the Human Resource Department. However, in relation to the police force, the KM structure and ethos needs to run much deeper and needs to be inherently linked to how the police force is providing the service that is required of it (Paiva, 2002, p. 381-389). It is a vital need to have a strong KM structure in the Dubai Police Force, allowing access to all officers, in order to benefit the force and ensure that employees' work is more efficient.
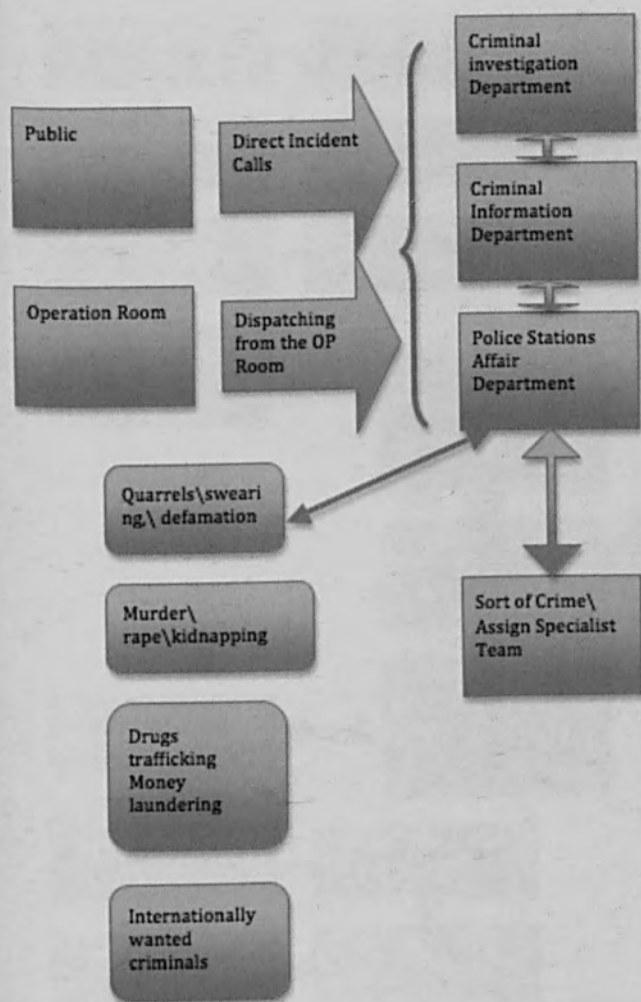
Figure 5.3: Criminal Investigations Business Process Workflow

Figure 5.4: Dubai Police Business process workflow

Figure 5.4 presents the business process workflow currently in place within the Dubai Police Force. This diagram demonstrates the way in which the core activities undertaken by the Police Force interact with one another, mediated by the Police Headquarters, which determines overall strategy. This interaction is crucial to the development of the knowledge management system. Similarly, Figure 5.5 shows the processes involved in dealing with the public. The public, and other external bodies interact with the Police Force in the execution of some of their core duties and

processes, and therefore should be considered as part of the knowledge management

framework.
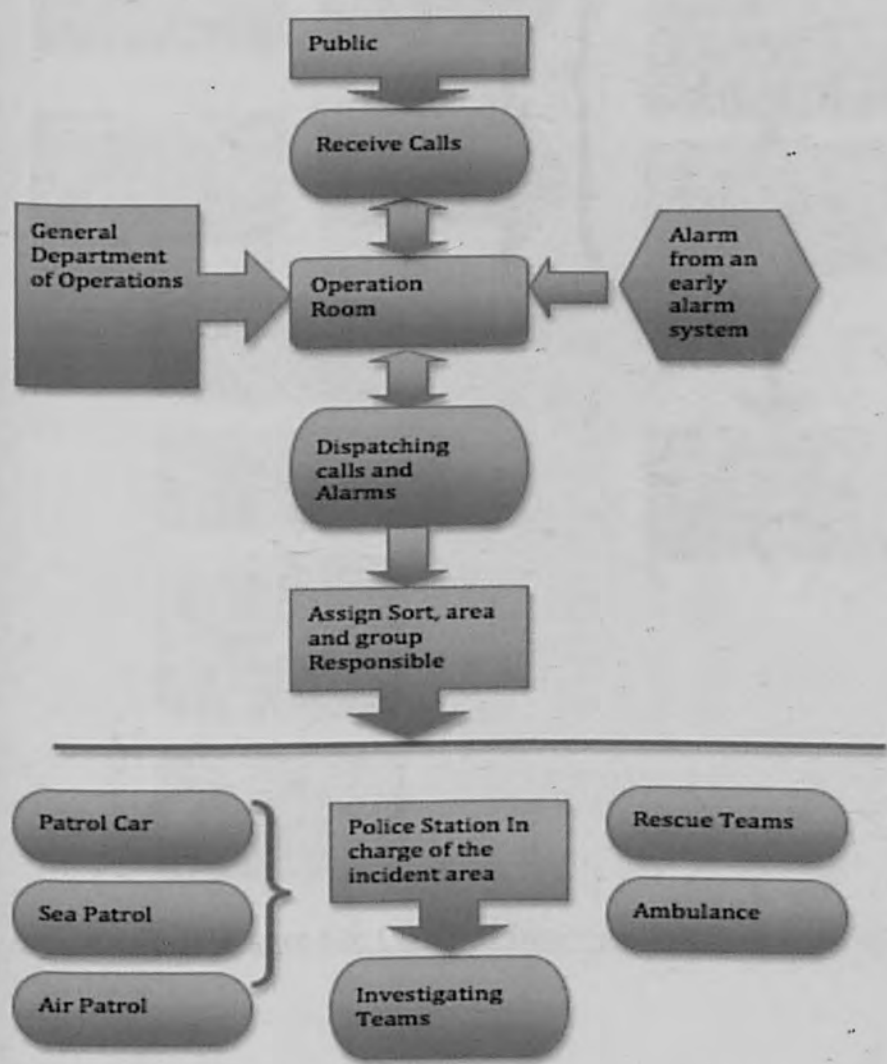
Fig. 5.5: Operation Room Business Process Workflow

Figure 5.6 shows the main workflow in the criminal investigations process. It

demonstrates the way in which crimes and core tasks are allocated to specific teams,

and the flow of information between them.
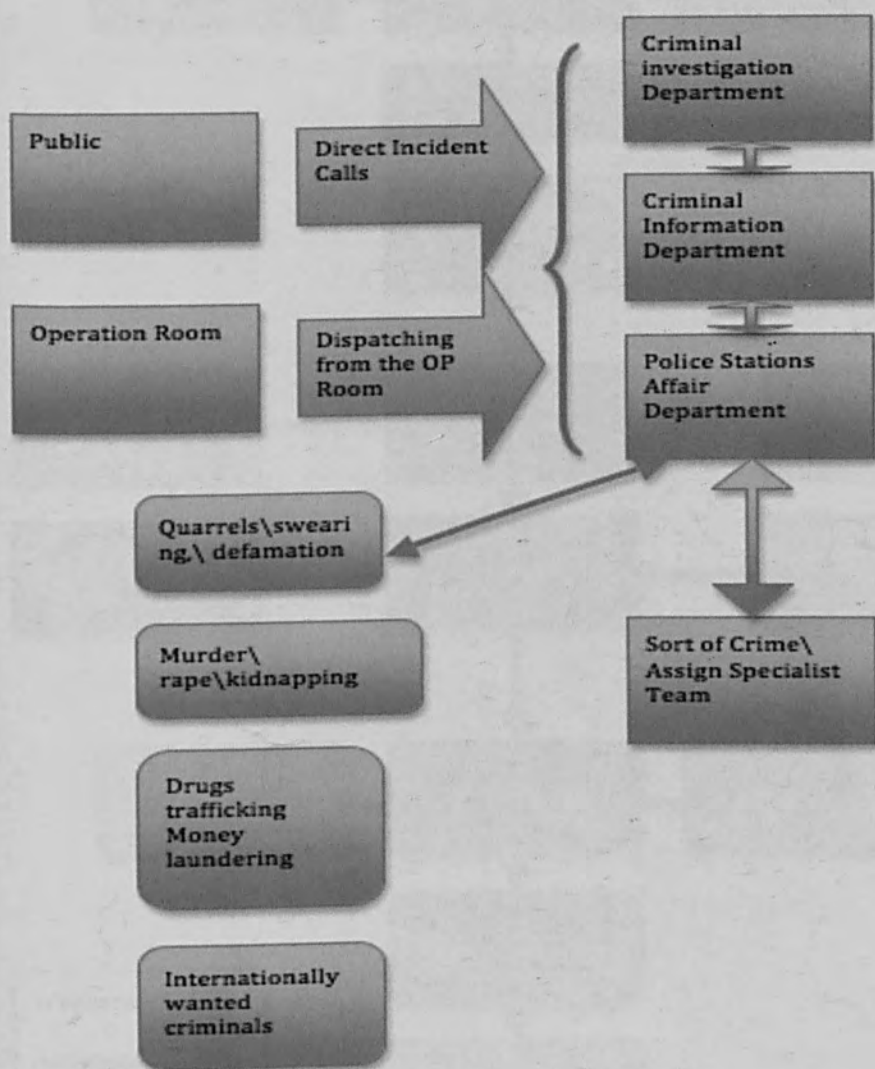
Figure 5.6: Criminal Investigations Business Process Workflow

Public

Direct Incident Calls

Operation Room

Dispatching from the OP Room

Criminal investigation Department

Criminal Information Department

Police Stations Affair Department

Quarrels\sweari ng,\ defamation

Murder\ rape\kidnapping

Drugs trafficking Money laundering

Internationally wanted criminals

Sort of Crime\ Assign Specialist Team
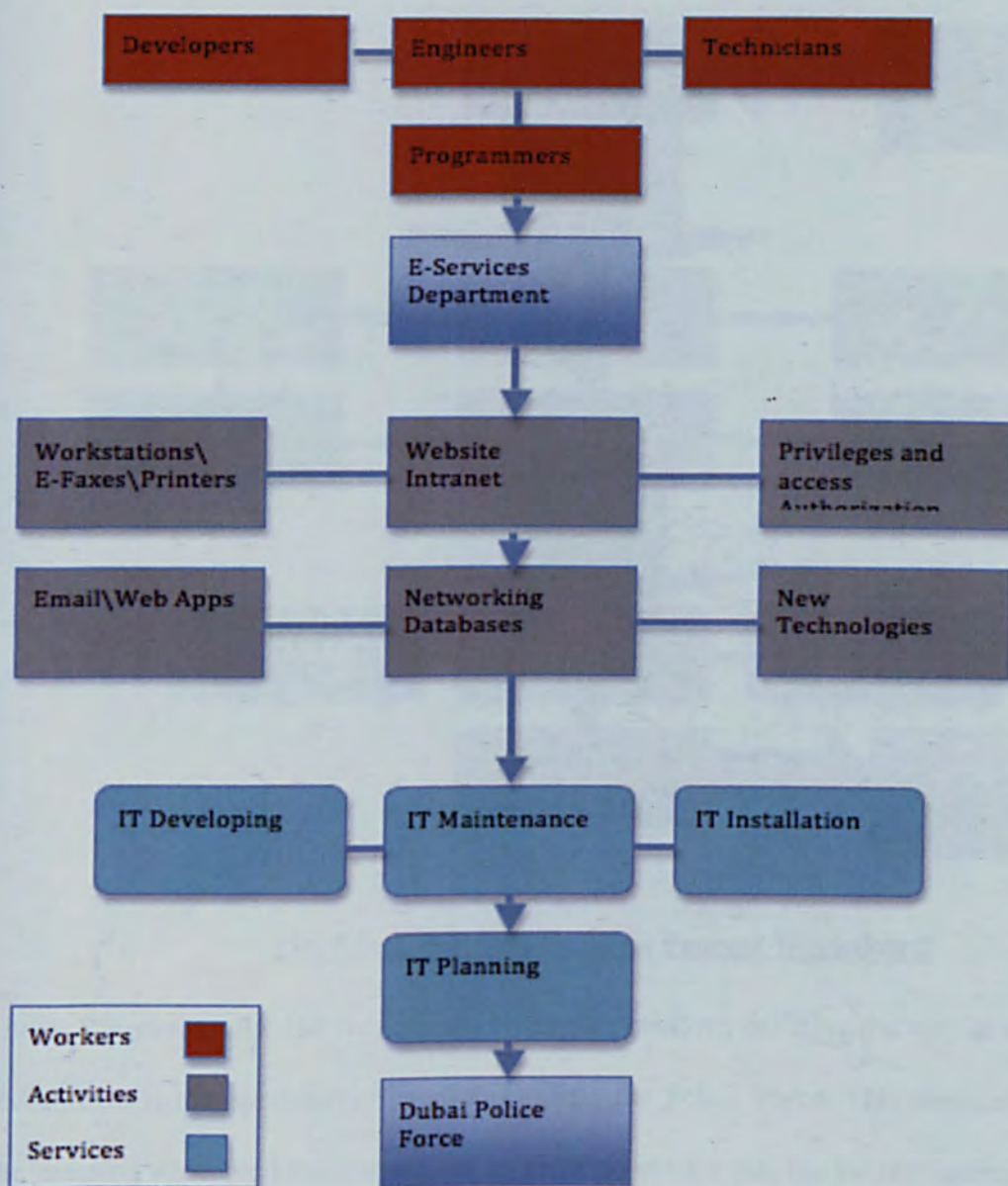
Fig. 5.7: E-Services Business Workflow

Figure 5.7 presents the core workflow in the E-Services department, outlining the personnel, key activities and the main services provided to the rest of the Police Force. Figure 5.8 demonstrates the way in which E-Services department interacts with the rest of the Police Force and the way in which its activities support the broader purpose and mission of the Dubai Police Force.
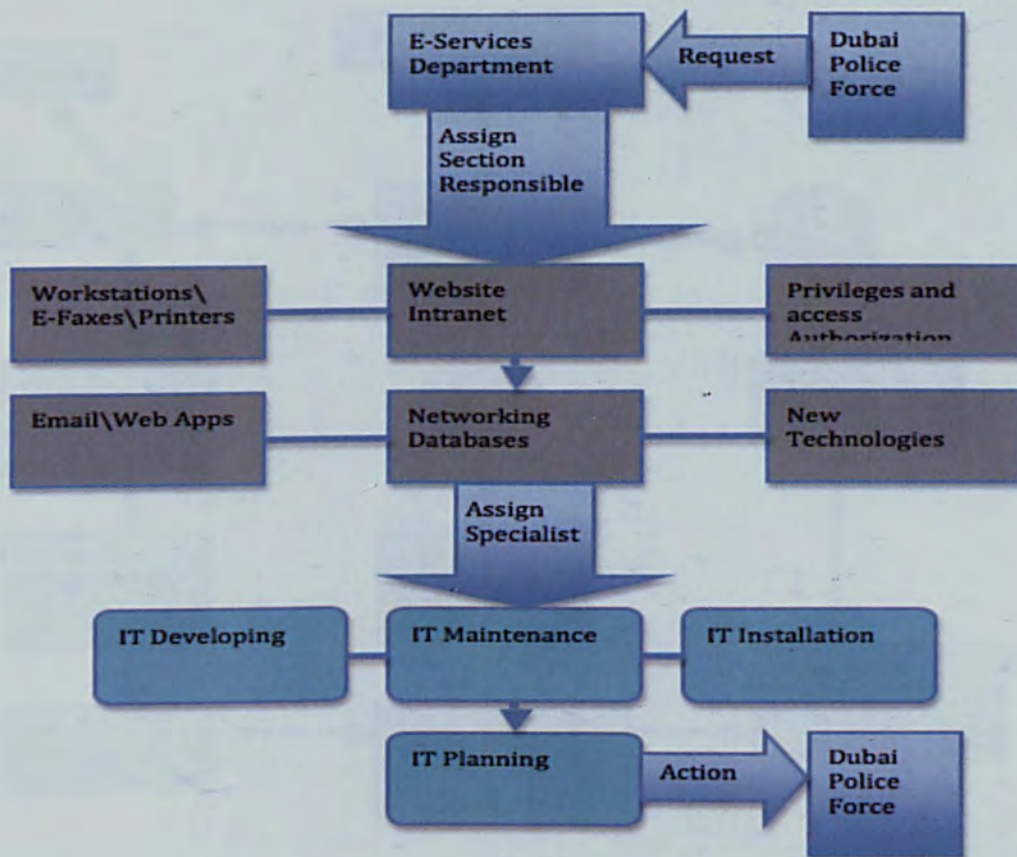
Fig. 5.8: E-Services Business Process Workflow 2

Figure 5.9 presents the HR recruitment business workflow, detailing the way in which recruitment is managed and effected throughout the Police Force. This demonstrates the pressing need for knowledge flow in order to ensure that the correct individuals are recruited to meet the wider needs of the Police fForce. For example there is little point in recruiting key individuals if the Police Academy is too full to train the individuals correctly.
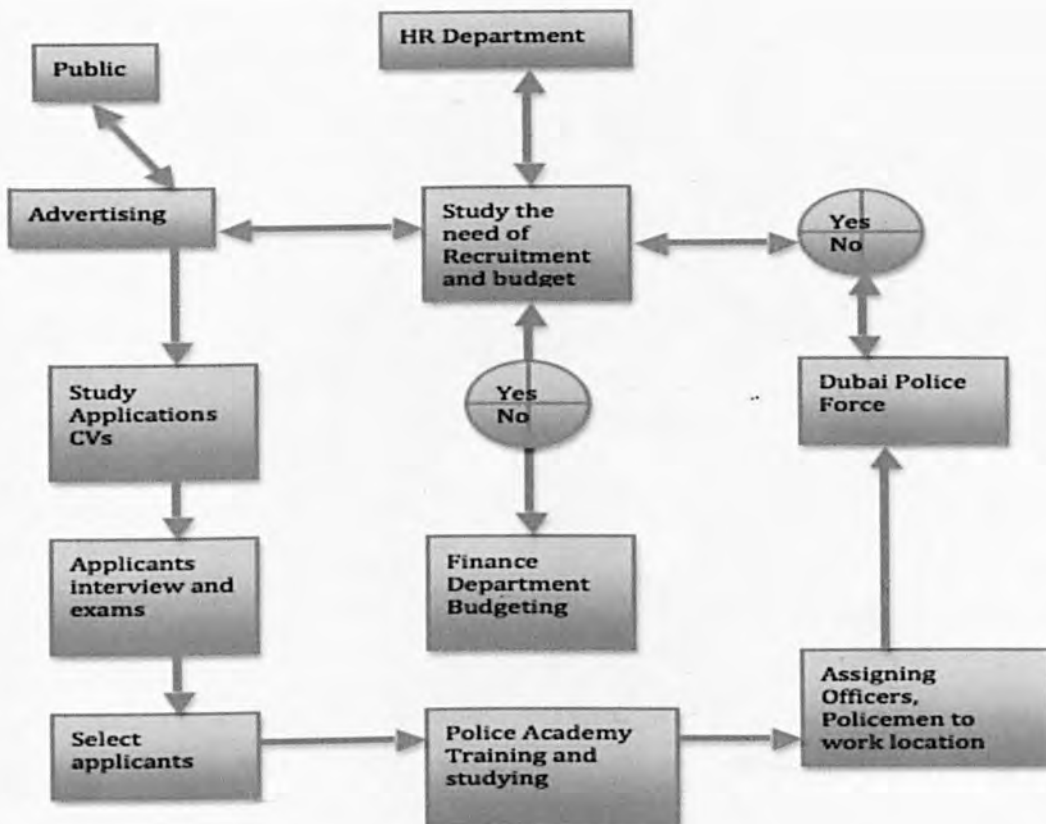
Fig. 5.9: HR Recruitment Business Process Workflow

Figure 5.10. presents a representation of the police force social ontology, incorporating all of the elements that will be taken into account within the new framework. This social ontology is intended to cover the personnell, activities, resources and strategies associated with the Dubai Police Force.
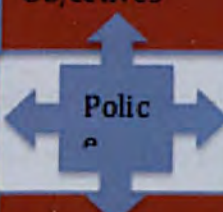
Rights	Security	Culture	Social	Economy
Patrols	Technologies	Top Management	Officers	Policemen
Police Stations	Facilities Equipments	Aim Objectives	Work Force	Civilians
Operations	Strategy	Police	Rules and Regulations	IT Infrastructure
Crime Investigation	Processes	Principles	Organization Structure	Practices
Crises	Road Control Security	Rescue	Training	Activities
Community	Environment	Government	Safety	Prevention

Fig. 5.10: Police Force Strategic Ontology

5.4. Proposed Framework

This section presents the proposed KM Framework, specifically tailored to the requirements of the Dubai Police Force following a detailed investigation into the problems in the current KM system. The framework devised during this study was grounded in the analysis of the case study questionnaires, interviews and observations in the Dubai Police Force, and the literature investigation into the conceptions of knowledge and theoretical perspectives associated with KM. The framework draws on existing KM approaches, as discussed in the literature review, specifically adapted for application in the context of this organisation. Following the analysis of the results of the investigation, it became apparent that the existing knowledge management system within the Dubai Police Force was deficient in a number of ways, and required widespread changes ranging from the implementation of specific practices through to

an organisation-wide shift in culture and values, in relation to knowledge and knowledge management. Although, therefore, the framework is highly tailored to the Dubai Police Force and its context, it is hypothesised here that many of the problems afflicting the Force may be generalised to other organisations, and therefore that this framework may have utility outside of the specific context of the Dubai Police Force.

It was decided that the extent of the change demanded the creation of a sound strategic ontological framework for knowledge management in the Dubai Police force. In order to create an appropriate framework that circumvented previous issues, it was critical to establish a comprehensive understanding of the organisation culture of the Dubai Police Force, together with a full analysis of the existing KM structure, and its strengths, weaknesses and modes of operation. Following this it was necessary to identify the most significant problems arising from the case study research. Throughout both the secondary and primary research, it became apparent that the Dubai Police Force needed to implement a successful, new KM structure that focused on the primary success factors for KM, as well as taking a broader holistic look at the organisational as a whole. Figure 5.11 presents the full framework developed during the course of this study.
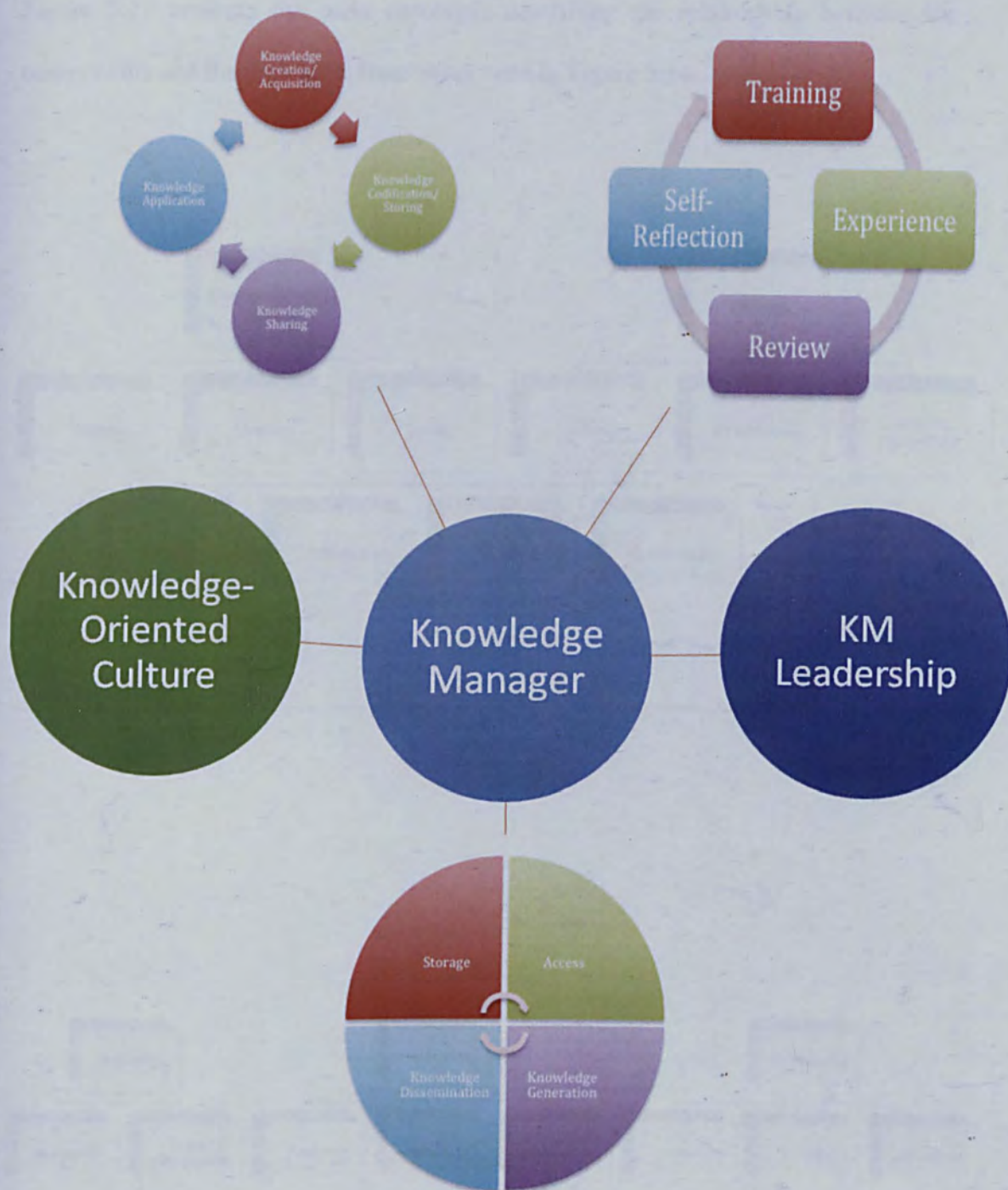
Fig. 5.11. SOPFKMF

The framework presented above is underpinned by a meta-ontology that comprises key components of the Dubai Police Force, as described in the previous chapters.

Figure 5.12 presents the meta ontology, describing the relationship between the components and the high level framework seen in Figure 5.14.
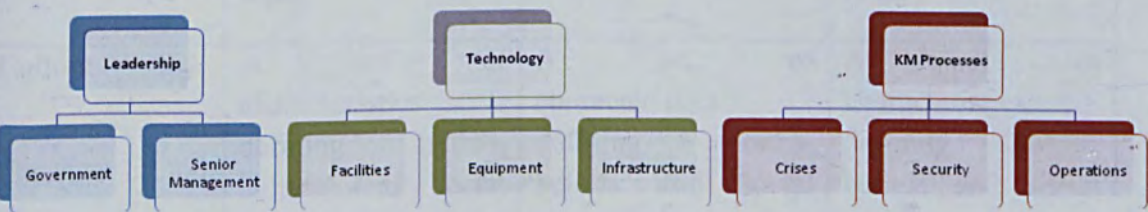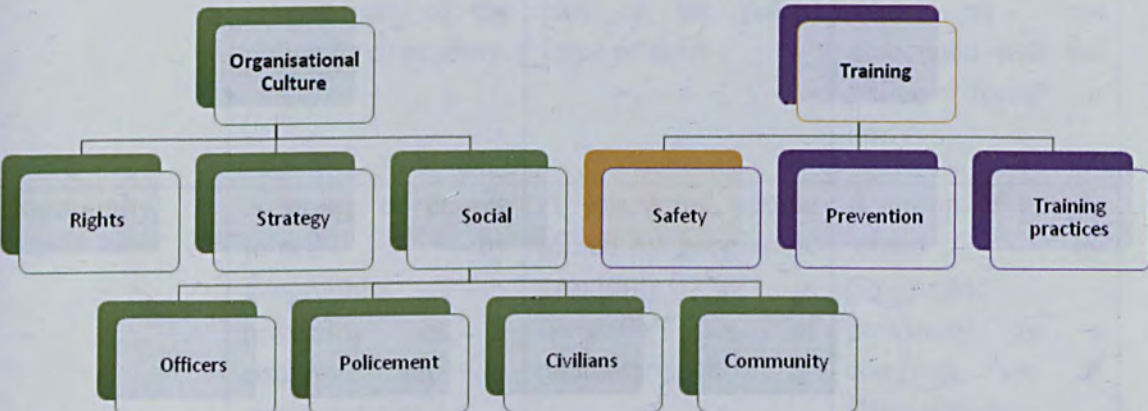
Fig. 5.12. Meta Ontology

Figure 5.13 presents the definitions of the items included in the meta-ontology and the strategic ontology, broken down at the individual, group and organisational level.

Concept	Individual	Group	Organisation
Civilian	An individual who is not part of the police force or army	A group that is not part of the police force or army	An organisation who is not associated with the police force or army
Community	A group of people joined by geographic proximity or a common set of characteristics	A group of people joined by geographic proximity or a common set of characteristics	A group of people joined by geographic proximity or a common set of characteristics
Crime Investigation	The act of investigating a breach of the law or criminal activity	The act of investigating a breach of the law or criminal activity	The act of investigating a breach of the law or criminal activity
Crises	A period of difficulty or danger that threatens the survival of all or part of the police force	A period of difficulty or danger that threatens the survival of all or part of the police force	A period of difficulty or danger that threatens the survival of all or part of the police force
Culture	A set of characteristics defining norms, beliefs and social practices associated with an individual	A set of characteristics defining norms, beliefs and social practices associated with a group	A set of characteristics defining norms, beliefs and social practices associated with an organisation
Economy	Relating to the financial health and status of a country, the movement of goods, services and	Relating to the financial health and status of a country, the movement of goods, services and	Relating to the financial health and status of a country, the movement of goods, services and

	money within society	money within society	money within society
Environment	The surroundings and physical conditions in which the police force is required to work	The surroundings and physical conditions in which the police force is required to work	The surroundings and physical conditions in which the police force is required to work
Facilities and Equipment	The physical resources available to an individual within the police force	The physical resources available to a group within the police force	The physical resources available to the police force
Government	The individuals and organisations that are responsible for the governance of a state	The individuals and organisations that are responsible for the governance of a state	The individuals and organisations that are responsible for the governance of a state
IT Infrastructure	The information technology resources and supporting technology and materials within the police force	The information technology resources and supporting technology and materials within the police force	The information technology resources and supporting technology and materials within the police force
Officers	A member of the Police Force with responsibility for upholding the law.	A member of the Police Force with responsibility for upholding the law.	A member of the Police Force with responsibility for upholding the law.
Operations	An organised activity or series of activity focused on a specific purpose	An organised activity or series of activity focused on a specific purpose	An organised activity or series of activity focused on a specific purpose
Patrols	One of the core services provided by the Police Force, involving expeditions within specified areas to ensure that they are	One of the core services provided by the Police Force, involving expeditions within specified areas to ensure that they	One of the core services provided by the Police Force, involving expeditions within specified areas to ensure that they are

	secure	are secure	secure
Policemen	A member of the Police Force with responsibility for upholding the law.	A member of the Police Force with responsibility for upholding the law.	A member of the Police Force with responsibility for upholding the law.
Police Stations	The office or headquarters of a local branch of the Police Force	The office or headquarters of a local branch of the Police Force	The office or headquarters of a local branch of the Police Force
Practices	A customary, habitual or institutionally designed procedure for doing something	A customary, habitual or institutionally designed procedure for doing something	A customary, habitual or institutionally designed procedure for doing something
Processes	A series of stages or actions that are designed to achieve a specific goal	A series of stages or actions that are designed to achieve a specific goal	A series of stages or actions that are designed to achieve a specific goal
Rescue	Strategy or systems in place to enable the police force to save civilians from dangerous situations	Strategy or systems in place to enable the police force to save civilians from dangerous situations	Strategy or systems in place to enable the police force to save civilians from dangerous situations
Rights	The basic rights and freedoms to which individuals are entitled, based on their legal status.	The basic rights and freedoms to which groups are entitled, based on their legal status.	The basic rights and freedoms to which organisations are entitled, based on their legal status.
Road Control Security	Procedures and systems in place to ensure the security and safety of traffic	Procedures and systems in place to ensure the security and safety of traffic	Procedures and systems in place to ensure the security and safety of traffic
Rules and Regulations	Directives maintained and issued by the police	Directives maintained and issued by the police	Directives maintained and issued by the police

	force, governing the behaviour and institutional practices within the police force	force, governing the behaviour and institutional practices within the police force	force, governing the behaviour and institutional practices within the police force
Safety	Measures and strategies undertaken to ensure the physical well-being of an individual	Measures and strategies undertaken to ensure the physical well-being of a group	Measures and strategies undertaken to ensure the physical well-being of an organisation
Security	Procedures and strategies followed that guarantee the safety of an individual; the safety of an individual from criminal activity	Procedures and strategies followed that guarantee the safety of a group; the safety of a group from criminal activity	Procedures and strategies followed that guarantee the safety of an organisation; the safety of an organisation from criminal activity
Social	Relating to society and human relations within society	Relating to society and human relations within society	Relating to society and human relations within society
Strategy	A plan of action designed to achieve specific individual goals	A plan of action designed to achieve specific group goals	A plan of action designed to achieve specific organisational goals
Technologies	The range of technological tools and services used to assist an individual in its daily activities	The range of technological tools and services used to assist a group in its daily activities	The range of technological tools and services used to assist an organisation in its daily activities
Top Management	The senior authority within the Police Force, responsible for directing activities, setting organizational	The senior authority within the Police Force, responsible for directing activities, setting organizational	The senior authority within the Police Force, responsible for directing activities, setting

	structure and overseeing operations	structure and overseeing operations	organizational structure and overseeing operations
Training	A system of education to ensure that staff are capable of executing specific tasks	A system of education to ensure that staff are capable of executing specific tasks	A system of education to ensure that staff are capable of executing specific tasks
Work Force	The people engaged in or available for work within the police force	The people engaged in or available for work within the police force	The people engaged in or available for work within the police force

Fig. 5.13: Meta Ontology Definitions

5.4.1. Overall Framework

Figure 5.14 presents a high-level overview of the major components of the framework developed within this study.

Figure 5.14: SOPFKMF: High Level Framework

At the heart of the framework is the central co-ordinator (Knowledge Manager). The role of the Knowledge Manager is to ensure that all parts of the framework are co-ordinated effectively, and that all key stakeholders in the knowledge management process are properly integrated. It is recommended that one individual or small team be given the responsibility to connect the various aspects and implementation of the knowledge management framework, and ensure that the component parts are working together appropriately. The Knowledge Manager will be responsible for co-ordinating the following aspects of the framework: a) the processes and policies via which knowledge is effectively and efficiently created, stored and accessed; b) the technologies that are used to store and access organisational knowledge; c) the training facilities and opportunities for employees in the organisation in relation to knowledge management; d) leadership from within senior management; and e) the establishment of a mutual learning and knowledge sharing culture. This graphical representation presents the major components of the framework, but it should be noted that each component interacts with and is mutually dependent upon the

remaining components. The following sections will describe each component in detail, together with the way in which they interact together.

5.4.2. Knowledge Management Processes

One of the most important aspects of the new framework is the use of new processes and techniques to assist in the flow and exploitation of knowledge throughout the organisation. The study demonstrated that although some knowledge management processes are in place within the Dubai Police Force, they are insufficient, not always fully exploited, and do not function effectively. As a result, this section proposes a wholesale reform of the existing knowledge management processes and practices in accordance with a core model of the knowledge management process. Figure 5.15 presents the core KM process that the proposed strategies are grounded upon.
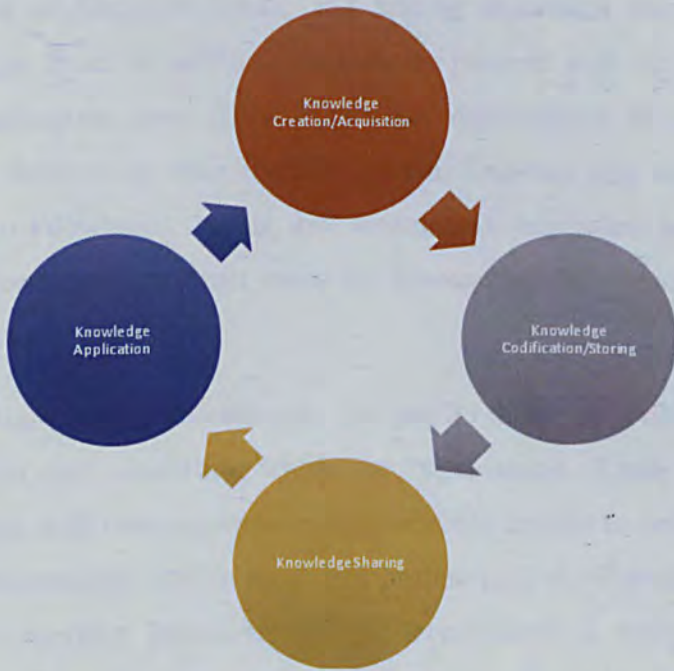
Figure 5.15: Core KM Processes

This core process within the framework is designed to refocus attention on to the entire lifecycle of knowledge within the organisation. One of the findings from the study indicated that although many individuals were capable of finding information when the need arose, there was a lack of awareness of the future utility of that knowledge and the need to make that knowledge available to others who may be

facing similar situations. Furthermore, there was a lack of appreciation of the significance of tacit knowledge derived from experience, as opposed to explicit knowledge that is already represented and codified. According to the proposed framework, employees will be provided with tools that will enable them to translate their daily accumulated knowledge and experience and codify it in order to make it accessible to other employees.

One of the problems identified in the observations was employee reluctance to record the details of their case work. This is an understandable problem, as it was construed as a time consuming process, with little perceived reward. As a result, a new process will be put in place where case notes will be automatically uploaded and made accessible on the intranet, but the employee will be required to briefly annotate the case in order to facilitate information retrieval. This will be achieved in a light-weight, easy-to-use interface through a tagging mechanism, thereby improving the interconnectedness of historical cases, and adding individual knowledge to the existing knowledge base. In addition to this, employees will be encouraged to approach their colleagues, even those from other departments, to discuss historic cases and source information from them in person. This not only creates a culture more conducive to knowledge sharing, but also allows employees to explicitly see that their tacit knowledge has direct value for others, thereby encouraging them to share more diligently.

In addition to this, other processes will be put in place in order to stimulate knowledge creation and acquisition within the organisation. These processes will involve regularising staff training, encouraging external experts to deliver lectures to employees, and encouraging staff in their own professional development. In addition to this, employee working processes will be streamlined in order to allow for knowledge codification and recording to become a habitual and necessary part of the working day, rather than an optional 'extra'. Opportunities for knowledge codification will be maximised by ensuring that the technology is available to employees at all times. These new knowledge management processes and policies will be co-ordinated by the Knowledge Manager, but will mobilise several different departments and groups within the organisation. As a result, there is an onus placed upon mutual support and collective working, which in turn, is intended to cultivate an atmosphere of collaboration, knowledge sharing and support within the organisation at large.

5.4.3. Knowledge Management Technologies

Effective use of a variety of different technologies is essential for implementing a good knowledge management system in any organisation. Knowledge management depends upon technologies for storage, access, knowledge generation and dissemination. The present study demonstrated that although there is a limited use of technology within the Dubai Police Force, this needs to be updated and extended in order to ensure that employees can derive the maximum benefit from the knowledge management system. Figure 5.16 demonstrates the major technological elements of the new knowledge management system.
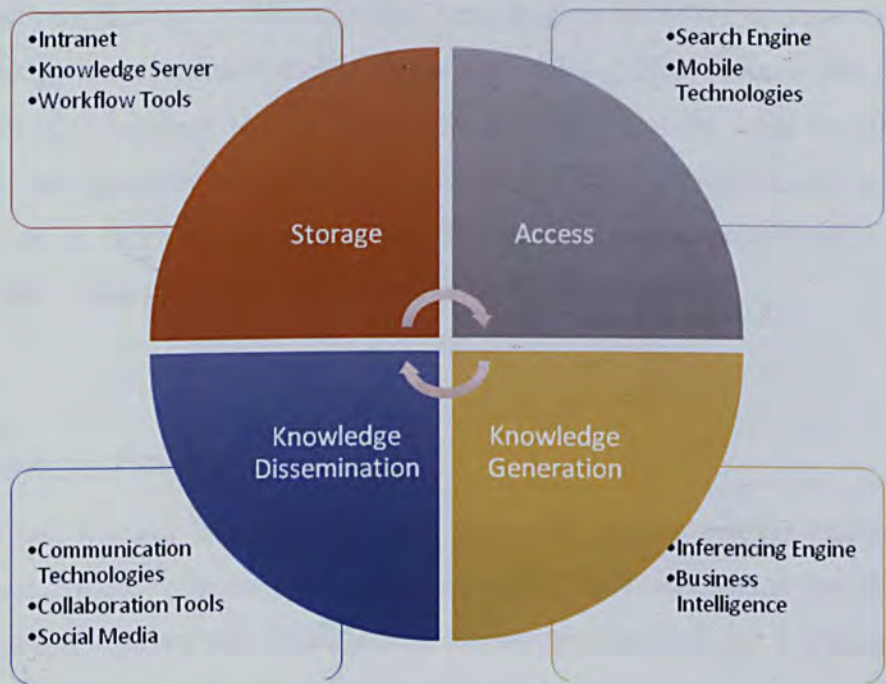
Figure 5.16: Technology Framework

The ethos behind the new use of technology within the knowledge management framework is that its use must be user-centred and purpose-driven. This means that the technology must be put in place to serve the user (i.e., the individual employee) and it must be closely geared towards its purpose within the overall knowledge management framework. As a result, the technologies mobilised are always to be understood in the context of their overall role in the knowledge life-cycle throughout the organisation. Furthermore, one of the major issues raised in the investigation was apprehension regarding the use or integration of new technologies into organisational practices. It was felt by many participants that the burden of learning new

technologies or patterns of working would be disruptive and counter-productive, particularly among older members of staff who were less familiar with new technologies. As a result, all of the technologies adopted within the new system must be user-friendly, easy to access and use, and should mobilise consistent interactive paradigms to lessen the burden on the user. This means setting overall design and interactive paradigms, particularly for knowledge input tools, that are familiar and reassuring for users throughout the force.

In addition to this, education and training is a critical aspect of technology use, and there needs to be effective support systems in place throughout the organisation to assist employees in case of difficulty. The main responsibility for the supervision of the knowledge management technologies in the Dubai Police Force is the General Department of E-Services. One of the problems identified in the study was that this department was generally too isolated from the rest of the organisation, and so greater steps need to be taken to ensure that this department is more proactively involved across all other departments, in order to provide effective support.

5.4.4. Employee Training

Education and training is critical in order to ensure that knowledge management practices are effectively managed and implemented. Training ensures that the tools created to assist in knowledge management are properly utilised, but it also acts as a mechanism to instil broader cultural values throughout the organisation. In addition to being essential to the knowledge management process, staff training is also a source of knowledge generation, as employee extend their existing knowledge, which then becomes an organisational asset. As a result, it is extremely important to ensure that staff training is properly planned and executed. This framework aims to conceptualise staff training as an on-going process, rather than a one-off activity that is effected when the employee joins the workforce. On-going training ensures that the employee continues to develop over the course of their professional career, but it is also important to ensure that staff are able to adapt to new and changing technologies. As such, the knowledge management system is not subject to a fixed, static implementation, but is viewed as a continually adapting and responsive process.

Figure 5.17 shows the employee training cycles within the new knowledge management system.

Figure 5.17: Employee Training Cycles

This diagram shows the continual training and professional development required within the new knowledge management system. Within this system, the burden of responsibility between the employee and the Human Resources Department is shared equally, through the processes of review and self-reflection. The initial training will be provided by the Human Resources Department, who will ensure that all staff receive appropriate basic training in order to appropriately use the knowledge management systems. The employee will then be encouraged to engage actively with knowledge management technologies in order to ensure that they are able to use them appropriately during the course of their work. The employee will be subject to regular reviews that aims to assess whether the employee is making effective use of the new technologies, and in order to raise any potential issues. However, the employee will also be required to actively reflect upon their own professional development, and to seek out new training opportunities in conjunction with the Human Resources Department. This process of training, experience, review and reflection should be continually repeated throughout the employee's career, ensuring that they are constantly given the opportunity to learn new things and contribute to the wider organisation through their own development.

In particular, attention will be placed upon effective management training within the new system. The Dubai Police Force has a large managerial structure and levels of training among these employees are not always consistent. Moreover, the success of the new knowledge management system, is to a large degree, contingent upon the capacity of managerial staff to effective evangelise the framework and ensure that the staff are sufficiently motivated to implement the changes in their own daily routines. Without adequate training, managerial staff will not be able to properly instruct and motivate employees to become involved in the new practices, which may severely affect outcomes. As a result, during the implementation of the framework, considerable attention will be paid to managerial staff in order to ensure that they can communicate the required changes to employees clearly and effectively.

5.4.5. Senior Management

One of the major issues raised in the course of the investigation was an over-centralisation within the Police Force and an emphasis on the role of senior management in overseeing all aspects of the organisation. This has resulted in a very linear hierarchy, in which employees in different departments are required to seek approval for activities from their senior manager within that department, and prohibiting effective collaboration horizontally across departments. This is a major problem as it prohibits knowledge sharing, creates delays in administration, and leads to frustration and apathy among employees. In order to address this issue, the organisational structure must be reformed, and senior management must take a more active role in encouraging collaboration between departments in addition devolving powers where necessary in order to reduce bureaucracy. The rationale behind the centralised approval system is that it acts as a guard against poor decision-making: the senior managers typically have greater visibility into the broader workings of the organisation and are therefore equipped with the appropriate knowledge to take decisions. However, this also leads to the creation of a 'need-to-know' culture, and knowledge and authority is therefore concentrated into the higher echelons of the organisation. If knowledge were more effectively distributed throughout employees within the organisation, there would not be a need for the senior management to retain

control over all decision-making. This would make organisational processes more efficient and allow for a greater degree of cross-departmental cooperation.

In addition to this, the senior management need to set a more explicit example in leading knowledge management within the organisation. This leadership role is very important in ensuring that employees are aware of the importance of knowledge management, and also means that they feel more valued, as their individual knowledge contribution (tacit knowledge) is explicitly valorised in the system.

5.4.6. Establishing a Knowledge Sharing Culture

As Robbins suggests, "organizational culture has emerged as a key factor for organizational changes and modifications" (Robbins, 1996, p.214). Human aspects of culture are considered to impact strongly upon business performance and change management. Davenport and Pursak (2000) cite organizational culture as the "fundamental index to evaluate success of knowledge management within organizations; such that successful knowledge management in the organization depends on its value in the organizational culture" (Robbins, 1996: p.214). For this reason, within the scope of this study, considerable time will be devoted to understanding the organisational culture and the potential impact upon the KM framework. In particular, it will focus on the ways in which the departments may be drawn together more closely, to promote co-operation and understanding of the inter-dependency of departments. Following Ansari et al.'s model (2012), the remaining four factors were considered, including organizational structure, human resources, IT Infrastructure, and finally, the way in which strategy and leadership affect application of KM within organizations.

The study demonstrated that one of the key barriers to the implementation of a new knowledge management framework within the Dubai Police Force is the wider culture that has been cultivated in the organisation. Employees are typically not aware of the significance of knowledge as a strategic asset, and do not see the benefit of inputting their own experiences in to the existing knowledge management facility. As a result, significant information and data is lost. In part, this rests upon a wider cultural perception that only explicit knowledge is to be valorised: tacit knowledge among

employees is widely ignored and underestimated within the organisation currently. Consequently, in the new framework, there must be a wider effort to instil a new set of cultural values across the organisation and to cultivate a culture of knowledge sharing.

Within the new framework, this might be achieved in a variety of ways. One of the limitations of the current system is that it did very little to encourage human, face-to-face collaboration between employees, particularly those across different departments. As a result, an effective strategy may be to develop more opportunities for employees from different departments to meet one another, speak about their work, and develop productive relationships that facilitate knowledge sharing and collaboration. In addition to this, the current incentive system within the organisation does not lend itself to collective practice: employees tend to be fixated upon their own individual or department-based rewards and targets, and not focused on contributing to the organisation as a whole. As a result, in order to develop a more supportive, collaborative and responsive environment, these values need to be reinforced at all levels of the organisation, particularly by senior management and the human resources department.

5.4.7. Toward an Integrated Framework

The purpose of the proposed framework is to encourage an integrated approach to knowledge management across all of the components outlined about, and across all departments. As a result, the role of the knowledge manager or knowledge management team is critical. Under the present system, various aspects of knowledge management have been construed as the sole responsibility of one or two departments, particularly the Department of E-Services in maintaining knowledge management technology, and the Department of Human Resources as the body that maintained information on the organisation's employees. Although these departments are important within the knowledge management system, this has resulted in a situation where knowledge management is regarded as peripheral rather than a central component of all aspects of the organisation, and means that other departments tend to be reluctant to take responsibility for it. Within the new system, the principal role

of the Knowledge Manager will be to co-ordinate all of the different components of the framework and reinforce their importance across all departments.

In addition to adopting a more integrated model of knowledge management, the new framework aims to introduce a more dynamic knowledge management system. Rather than viewing the new framework as a monolithic change that simply needs to be implemented once, it will inculcate a more flexible approach that can accommodate continual change and development. This will act as a vehicle for wider change within the organisation, encouraging reflection, experimentation and development, which should allow changes to be made more easily and ensure that employees are comfortable and used to using a dynamically developing system. The knowledge management framework is not an end in itself, and rather should be understood as a means to an end. As such, the knowledge management system will be fundamentally goal-oriented, and aims to improve organisational performance. It will therefore be subject to continual review and development in order to achieve those goals.

In order for the Dubai Police Force to create a new KM strategy and empower their organisational structure, they clearly need to consider how to ensure that the strategy was effectively integrated into the organisational culture, through supporting services and enabling technologies. Based on the KM framework shown above, the top management team will have to drive the mission and lead the effort to restructure the KM system. This involves changing attitudes to the workplace among the wider group of employees, changing employee relations, and promoting a knowledge-sharing culture that prioritises the recording and storing of information to make it accessible to others (Martinez, 1998: p.88).

Following this review, the Dubai Police Force will be able to implement the New Strategic Ontological Police Force Knowledge Management Framework and establish a computerised system that will support the new KM structure. Furthermore, the Dubai Police Force will have to look closely at spin-off activities, such as cross-departmental activities; however all the new changes and the issues mentioned above will have to be centred on the computerised system and there must be a specific training for all the employees in order to ensure that all employees in Dubai Police Force are comfortable with the new framework and will be able to use the new system (Klobas, 1997). In addition to this, regular reviews will be established, in order to

ensure that collected knowledge is being stored and shared in the most efficient and appropriate ways, and that employees are fully exploiting the new system. These regular checks are necessary in order to ensure that there are no delays when solving cases or taking other actions, arising from pockets of resistance among the workforce. Knowledge management is more than simply the implementation of a computerised program that allows the collection and dissemination of data. It requires a complete culture change and this will, therefore, be central to the on-going agenda within the Dubai Police Force (Wild et al., 2002).

5.5: Potential Implementation Issues

A number of potential issues have been anticipated when implementing the New Strategic Ontological Police Force Knowledge Management Framework. The principal barrier is likely to be resistance to change among the Police Force employees themselves. Potential solutions to this include:

- Changing the employees routine to encourage data input into the system, and sharing through the organisation.

- Encouraging the employees to input into the system what they benefited from the cases and experience that they gain from the physical activities

- Encouraging employees to adapt to the new change and to make links between facts, data and experience

- Motivating employees to adapt to the new strategy and to invest themselves personally in its implementation.

- Getting employees to focus on the knowledge flow throughout the organization in addition to their physical activities.

- Having leaner coordinations between the employees in Dubai Police Force

There are significant concerns that the implementation of the new framework may be met with a lack of support or motivation of behalf of employees in the organization. In part, this may be mitigated through effective management; managers need to refrain from giving orders to the employees, but rather to explain to them the

importance of change in a diplomatic way, in addition to allowing the employees to contribute their own ideas and opinions about how they can improve efficiency and work performance. The need for senior management to delegate, empower, and motivate employees is of critical importance in order to raise the overall productivity of employees. Many managers, however, are not well trained on how to deal with their employees in a diplomatic way, to exchange new ideas with them and help them adapt to the new system. Due to a lack of proper training, managers often lack efficiency and exhibit poor management technique. As a result, one of the most important aspects of the implementation of the framework in the Dubai Police Force involves the training of management staff, in order to ensure that they can evangelise throughout the wider company concerning the benefits of investment into the new framework.

In addition to establishing the existing problems in the Dubai Police Force, it is also important to analyse the theory and ontology associated with KM that needs to be applied to the Dubai Police Force. The selection of a theoretical and ontological approach is of particular importance to ensure that it is well-adapted to the cultural and organisational context of the Dubai Police Force. Policing departments across the world tend to be subject to considerable scrutiny and are highly results-driven, and efficiency can have profound implications for the wider society. In order to maintain security and public confidence, it is of critical importance to have the ability to produce accurate information about policing activities and performance. As a result, these organisation-specific factors must be taken into account in the design of the new framework.

The principal step for the senior management team is look at the different ways to help improve the system, and to establish a target of replacing formal communication methods with informal ones, encouraging the employees to exchange with them new ideas and thoughts regarding how they can adapt to the new changes. Training also must be undertaken for both managers and employees from the initial stages, to increase the level of acceptance and help introduce the KM practice of sharing their daily activities with each other by inputting it to the new system in Dubai Police Force as part of a regular routine.

The principal tool for knowledge-sharing between departments and colleagues in the Dubai Police Force under the new KM system will based in information technology, as a result of the distributed nature of the Police Force and the fact that it is impractical for the departments to speak face-to-face, on a daily basis (Horwitch and Armacost, 2002). Dubai Police Force will no doubt face problems when implementing the new KM system across the work force, and some employees will prefer to cleave to their existing routine, and may be apprehensive about gaining familiarity with a new computer system. As a result, proper training in using the KM tools is essential. This is particularly important for the managers, as they have significant influence over the way in which the individual staff members perceive inter-departmental co-operation (Ouintas et al., 1997). With this in mind, it is expected that the initial implementation of the new framework will place considerable load on the managerial staff, and they will be critical to the initial stages of the shift. They must be involved from the outset in the decision-making and planning process, so they can encourage their employees as much as possible throughout the organisation to accept and adapt to the new changes. The managers will need the support of the senior management team to help in working towards overall acceptance, due to the fact that they are dealing with such a large number of individuals in the whole organization and they will face difficulties in achieving the automatic support of the entire staff.

Summary of Implementation Issues:

- Through this case study it became clear that difficulties may arise when implementing large scale change in the Dubai Police Force. The problems largely concern the employees' ability to accept and adapt to this change.

- The Dubai Police Force cannot start to change the knowledge management structure rapidly and single-handedly. The progress must be achieved by having skillfull and well trained managers, to be able to have employees follow them willingly and accept the changes.

- It is an essential factor, in the crucial period of implementing the New Strategic Ontological Police Force Knowledge Management Framework in Dubai Police Force, to gradually getting the the knowledge and applying it through out the organization.

- The restructuring plan of knowledge management should be well thought-out, and implemented through trained managers who will accurately initate those changes and be flexible to ideas and changes throughout the process. In order not to hinder the progress that Dubai Police Force would like to have in their organization, it was clearly stated that planning each phase is very important.

- A modernized style of management should be adopted throught the organisation as the existing centralized style of management hinders the organization in achieving the success desired from the New Strategic Ontological Police Force Knowledge Management Framework

- To avoid new problems that will be difficult to solve, Dubai Police Force should consider to build the change on the current knowledge management structure that is used in the organization. Therefore, this means that the managers should listen and use the ideas and suggestions from the employees' to be able to exert an effective and an efficent change in a timely manner.

5.6. Implementation Strategy

Dubai Police Force are targeting competivite advanatage by improving work performance and KM. To attain general improvements and higher levels of productivity, the Dubai Police Force must establish realistic targets for all aspects of work, and train their employees to ensure they can adapt to the change in a systematic way, involving regular progress reviews to isolate problems at an early stage and in order to avoid confusion among the employees. The Dubai Police Force is encouraged to implement the New Strategic Ontological Police Force Knowledge Management Framework. For all the staff members in Dubai Police Force to embrace the new SOPFKMF, the organization needs to begin by addressing a number of issues that were hindering the process of this change. Recommendations include:

- Gradually implementing the changes in the work environment.

- A comprehensive understanding must be created between the managers and the employees in the different departments

- A clear understanding must be created of how knowledge should be shared and used from different perspectives in an organization.

- Advice should be sought from advisors and professionals, before planning to implement the SOPFKMF in order to be able to work toward a more successful kind of organizational change.

- Focus on developing employees in the workforce through:

  o Adequate training for both managers and employees regardless of their ranks.

  o Each individual employee must share the knowledge he has gained from experience or research and must learn from what others have shared

  o Involving the employees in all of the different stages of implementation of the new framework

  o Employees in the Dubai Police Force should be given the chance to participate with the new change by sharing their views with the upper management and their colleagues

In order to ensure the successful implementation of the new framework, a scaled implementation plan has been devised, in order to ensure that the transition is effected as smoothly as possible. A scaled implementation plan is a management tool which is designed to show in detail the main steps companies undertake when starting a project. This usually takes the form of a visual guide to inform staff about their proactive stance and their approach. A scaled implementation plan would be necessarry because implementing the whole framework in one attempt would mean that the change is too large and difficult in implement. Therefore it is important to implement gradually and scale up as the organistion matures in using the framework. This will entail devising strategy to implement the new framework in one area of the organisation, in order to test the new processes and technologies, and in order to ensure that employees gradually become accustomed to the new protocols. However, the selected pilot case needed to be an issue that transcended organisational departments, in order effectively test that the mechanisms created to break down

barriers between departments are working effectively. As a resutlt, it ws decided to focus the pilot on the Human Resources issue of staff training in relation to external courses and seminars. This is an issue focused onhuman resources, but under the new framework, will be widely applied throughout the organisation. The pilot study will test the framework by implementing the new technologies and encouraging employees from all departments to participate in applying the framework effectively in they daily routine.

The application of the new framework to this issue will require Human Resources staff to ensure that employee profile and progress reports are efficiently input into the new KM management system, in an easily understandable and accessible format. In order to ensure that all employees are invested in the new system, they will be encouraged to update their own profiles, and to view other employees information within the system. The Human Resources department will lead training sessions for employees and managers to ensure that all staff understand how to use the new technologies. In addition to this, employees will be asked to reflect upon their own professional development and discuss training opportuntiies with their own managers and with Human Resources. The new technologies will then be used to co-ordinate and facilitate appropirate training mechanisms for employees. These employees will then be encouraged to share their new knowledge and infromation with other employees, and compare experiences.

This case has been selected because it is a relatively familiar process that will a) allow the new technologies to be tested and for employees to become familiar with them, and b) because it introduces a new culture of valorising tacit knowledge and employee development throughout the organisation. It will also mobilise employees from across departments and throughout the managerial hierarchy, and will test methods of training and education for staff and managers. Although the Human Resources Department will play a prominent and active role, it will also necessitate close co-operation with other departments (such as the Department for E-Services) under the supervision of the Knowledge Manager.

In order to evaluate the new framework, a number of mechanisms will be adopted. First, the implementation will be overseen by the researcher, who will conduct a series of interviews, questionnaires and observations during and after the

implementation, in order to gague employee feedback. Second, a number of measurable outcomes related to organisational performance and the goals of the knowledge management framework will be set. These are as follows:

- A measure of productivity and efficiency across all departments relating to Human Resources operations.

- A measure of the extent of staff development through training and external resources

- A measure of cross-departmental collaboration.

These quantitative measures will be cross-referenced with the qualitative results of the investigation in order to assess the success of the implementation. Following this, any necessary changes will be made to the framework and established processes before they are extended to the organisation as a whole. This process will also establish an on-going review process of the knowledge management strategy within the organisation. This review process will develop into a regular occurrence, as the knowledge management framework itself is subjected to continual review, adaptation and development based on the changing needs and requirements of the Dubai Police Force.

5.7. Summary

This chapter has presented the proposed framework for knowledge management in the Dubai Police Force. The results of the investigation established a number of key deficiencies in the current knowledge management system, and wider cultural and organisational barriers to effective knowledge sharing across the organisation as a whole. The proposed framework offers an integrated model that will ensure that cross-departmental co-operation is achieved and prioritised, and the tacit knowledge among employees is valorised throughout the organisation. The new framework seeks to overcome these issues by establishing a practical and value-driven agenda that ensures that knowledge and knowledge management is regarded as an important aspect of the workings of the Police Force. The case study also indicated that attempts to introduce a new knowledge management framework may be met with hostility and

resentment. It became very apparent that there is a broad culture issue that means that many employees may not support a strong knowledge management system. Therefore, due to this problem, before the implementing the new knowledge management system in the Dubai Police Force, the management must first address this cultural issue to be able to overcome the problems they might face when implementing the new structure. By pre-empting this potential difficulty, the implementation of the new framework will be much easier to put into place. It will rely on the use of information technology through the intranet in their internal system, in order to overcome the distributed nature of the several different departments, occupying several different locations. However, the use of less formal processes to share knowledge has also been highlighted through this survey. It became very clear that the employees in Dubai Police Force would like to communicate and interact with their colleagues through cross departmental meetings taking place, in terms of bringing the departments together and ensuring on-going acceptance of this new strategy. In order to effectively test the new framework, furthermore, a pilot scheme has been devised, which will allow the full testing of the new system in a low-risk area of the organisation, thereby establishing key processes, technologies and values that will guide the future development of the system.

Chapter Six: Conclusion, Discussions and Future Work

This investigation was focused upon an in-depth case study of the Dubai Police Force, and aimed to develop a comprehensive Strategic Ontological Police Force Knowledge Management Framework for implementation throughout the organisation. This thesis has presented the rationale for the study, engaged in a comprehensive literature review, and presented the results of an in-depth case study into the current issues prevalent within the Dubai Police Force itself (see Chapter Four). This chapter will summarise the main conclusions of the research, assess the limitations of the study and situate the investigation within the wider literature.

6.1. The Case Study

The main objective of this case study (see Chapter Three) was to develop a comprehensive new Strategic Ontological Police Force Knowledge Management Framework (SOPFKMF) in the Dubai Police Force. It was decided that in order to understand the needs and potential challenges facing the Dubai Police force, an in-depth case study of the organisation was required to ensure that any solutions developed would be applicable to the organisational context. The study adopted a strategic ontological approach, based on a comprehensive review of the available literature, in order to create a framework that works, is flexible, can adapt to change, and is within the current budget capabilities, while also adhering to the current aims of the organisation (Tynan, 1999, pp.8-61).

The objectives of this case study were, therefore, as follows:

- To examine the current KM structure in the Dubai police, and a consolidated list of potential avenues for improvement.

- To identify and propose more effective KM methods and approaches, and to explore different avenues of efficient and effective changes in the organization.

- To develop and package potential solutions to the identified problems by developing the SOPFKMF based upon the review of the literature undertaken above

- To utilise the case study research to identify potential obstacles to implementation, and to pre-empt solutions to these problems

- To develop a strategy for testing of the proposed framework, leaving room to accommodate change and development in the organisation and to ensure that the KM practices in the organisation continue to evolve over time

6.1.1 Personal reflections

The study has highlighted certain failings in an environment where the transfer of knowledge is vital for the effective functioning of a very important organisation. The evidence of apathy within certain departments highlights that many staff members seem to value their roles as a task to be fulfilled in return for payment rather than that of an environment where crime prevention and detection should be the focal point of the police force. Indeed, effectiveness has been compromised due to the deficiencies and this has a wider implication to society in general. The Dubai Police Force has a culture whereby they do not seem to understand or be fully aware of the importance of knowledge and this will lead to a less effective force overall. The training endeavours need to be widespread – that is that every member of the force, irrespective of their position should be aware of all relevant aspects involving the police force, and not simply those that directly affect them. This explicit knowledge is very important and has been mentioned by (Nonaka & Takeuchi, 1995). The perception of and approach to knowledge is differentiated in the Dubai Police Force and this is highlighted in the work of Nonaka and Takeuchi (1995), who suggest that visible divergences in the ways in which individuals and organisations from different cultures conceive of and approach knowledge. In the same way as Srdoc et al (2005) highlighted their results, the Dubai Police Force currently exists as an institution whereby the encouragement of knowledge sharing is not apparent and the fostering of learning is not apparent.

6.2. Results, Conclusions and Recommendations

This study engaged in an in-depth analysis of the knowledge management practices of the Dubai Police Force, in order to establish the deficiencies and requirements that

characterise the current service. The findings have flagged a number of issues for concern, which may be taken into account in the development of a new knowledge management framework for implementation in the force. The literature review (see Chapter Two) strongly suggests that a successful knowledge management system will require more than simply having a strong infrastructure in place, and an ontological approach is needed, which looks at the entire organisational culture and essence of the organisation. In order to create an effective strategic approach to knowledge management, the first step, therefore, will be to assess the general culture and the way in which the organisation works. The present study identified a number of key problems within the organisational culture, in particular, the lack of importance placed upon the utility of tacit knowledge among employees, barriers to knowledge sharing between departments, and a wider culture of apathy, in which employees are not aware of the benefits of knowledge management (see section 4.5). In addition, the organisational culture is highly individual, meaning that employees rarely construe their work as serving the organisation, but rather are focused on their own individual targets and achievements. Throughout both the secondary and primary research, it became apparent that there needs to be a general ethos of co-operation and support for a knowledge management system, if the actual infrastructure which is put in place is to be readily accepted (Hsieh, et al., 2002).

As a result, the proposed framework attempted to devise an integrated approach to knowledge management. The principal components of the framework are as follows: a) new knowledge management processes and practices, including systems that encourage employees to input information into the system; b) effective knowledge management technologies that facilitate these processes; c) good training programs to ensure that employees are familiar with the new technologies and are focused on their own personal development (which in turn, is understood as contributing to the organisation as a whole); d) effective leadership from senior management; and e) the fostering of a culture of knowledge sharing and collaboration across departments (see section 5.4.1). A central knowledge manager, or dedicated knowledge management teams needs to be established to co-ordinate all of these elements and ensure that they interact effectively.

This framework, together with the literature review, demonstrates the need to consider people, culture, and processes as well as enabling technologies, in order to create a

strategy rather than simply creating a structure and expecting the workforce to fall in line. Based on this, a greater emphasis will be placed on changing the working approaches taken by individuals, within the police force. This will have to be driven from the top management team, including potentially changing the way in which targets are set, so that individual members of staff are more encouraged to work for others, rather than merely gathering information that is relevant to themselves (Martinez, 1998). Once these cultures have been put in place, it will then be possible to establish a computerised system that will support the newly established knowledge structure, as well as looking at secondary activities, such as cross-departmental communication. However, all of these will be centred on the computerised system and specific training will be necessary to ensure that all individuals are comfortable in the use of the new system (Klobas, 1997). A pilot implementation is suggested in order to trial the new technologies and introduce the new cultural values gradually to the employees in a low risk area of the organisation. This will allow any necessary changes to be made to framework following this initial implementation and before the changes are extended to the rest of the force.

Regular reviews will also be necessary, in order to ensure that the knowledge being collected and used is being done so in the most efficient way, as there are fears from specific individuals that too much time will be spent gathering information but not enough benefit gained. Regular checks will be necessary to ensure that this does not become the case, and that there are no pockets of resistance, or that these are being dealt with, potentially, by the top management team. In addition, this critique will be pre-empted by creating a process of demonstrating to employees exactly how the new knowledge management structures are contributing to organisational performance. Knowledge management is more than simply having a computerised program that allows the collection and dissemination of data. It requires a complete culture change and this will, therefore, be central to the on-going agenda, within the Dubai Police Force (Wild et al. 2002).

The police force, by its very nature is highly results-driven: for example, by looking at the number of crimes solved or general public opinions, in terms of whether or not they feel safe in their own homes. Bearing in mind the general ethos within the police force, it becomes increasingly important to look at the theory and ontology associated with knowledge management, in this type of organisation. Initially, the concepts and

knowledge management were looked at, in the context of commercial organisations. However, it has been established in both the secondary and primary research that the prevailing assumptions surrounding knowledge management in service based organisations, is very different. Therefore, the approach to developing a new knowledge management structure must take this into account, if it is to be successful.

The project plan for the future, therefore, involves working more closely on the general culture within the organisation and, in particular, looking at ways in which the department can be drawn together more closely, so that there is a general feel of co-operation and understanding of the importance that one department has on the performance of another department. The first step, therefore, will be for the top management team to come together to look at ways in which it could, potentially, change the targets that are put forward to the staff members, so as to encourage greater co-operation. Once this becomes inherent in the day-to-day operations of the police force, it will be much easier to introduce a knowledge management system. This will be implemented in conjunction with the pilot study in order to effect a material shift to new knowledge management systems, in conjunction with efforts to change the overall working culture within the Police Force.

The development of the knowledge management system will naturally be primarily based on information technology, due to the geographical locations that are encompassed and the fact that it is impractical for the department to speak face-to-face, on a daily basis (Horwitch and Armacost, 2002). This may create problems, in terms of the more established members of staff being unwilling to learn new computer systems, and training needs to be offered on the systems, from the initial stages, to increase the level of acceptance. This is particularly true for the managers, as they are highly influential in the way in which the individual staff members perceive inter-departmental co-operation (Ouintas et al., 1997). With this in mind, a greater focus will be placed on the managers and on ensuring that they are involved in the development process, so as to encourage the best possible uptake throughout the organisation. With such a large number of individuals involved, it will be very difficult to achieve complete support. However, gaining the support of the management team will be a real asset, in working towards overall acceptance.

6.3. Benefits and Limitations: Strengths and Weaknesses of the Research

As discussed in the Literature Review (see Chapter Two), there is a large amount of existing literature which focuses upon knowledge management, specifically in the context of commercial organisations and how they can use the knowledge within their company, which is the culmination of raw data and the experiences of the individuals, within the team, to achieve a competitive advantage over others. However, the matter is considerably more complicated, when it comes to service-based organisations such as the police force. From the primary research, it immediately became apparent that there was a culture that would not immediately support a strong knowledge management system. Therefore, whilst there were clear benefits to be had by sharing information across the police force, there were underlying cultural issues that needed to be addressed by the management team, before the infrastructure can be put in place. Once this has been undertaken, methodically, the knowledge management system that is put in place will clearly centre on information technology, due to the practical difficulties of having several different departments, in several different locations. However, it has also become apparent that individuals wish to see other knowledge management processes which may be slightly less formal, such as cross departmental meetings taking place, and easily, both for management teams, in terms of bringing the departments together and ensuring ongoing acceptance of this new strategy.

The major strengths and weaknesses of the study, therefore, revolve around the same core issues. The investigation's core strength was that it was able to build a holistic, comprehensive and accurate picture of the current knowledge management processes, cultural attitudes and practical challenges that constitute the Dubai Police Force. This allows for the development of a knowledge management framework that is sympathetic to these challenges and may be usefully executed within the context of this organisation. However, due to the highly specific nature of the Dubai Police force, there are limitations to the extent to which the conclusions may be generalised. Although the study does shed useful light on the needs and challenges facing public sector organisations, and may form a template for future research, this framework cannot be applied wholesale to other organisations.

6.4. Novelty and Usefulness of the Study

Several limitations have been noted while undertaking this research and these have produced recommendations for future potential research. Initially, the application of knowledge management techniques to a service-based organisation, such as the Dubai Police Force, was proving difficult to undertake. Knowledge management has primarily been viewed as something that is relevant to commercial organisations that are looking to gain a competitive advantage. However, applying the theories associated with knowledge management in the non-commercial field and to organisations such as the Dubai Police Force set the research on the wrong path. Bearing this in mind, one of the main limitations associated with this research was the fact that it was focusing, specifically, on a type of organisation that does not necessarily lend itself to knowledge management techniques, as we know them (Savary, 1999).

It is suggested, therefore, that future research in this area should spend more time looking at the cultural factors which are unique to the organisation in question; in this case, the Dubai Police Force. Although the background theories offered a real understanding of the issues being faced by the management team and the Dubai Police Force, it is necessary to focus more attention on the general cultural issues associated with this type of organisation, as failure in this regard may render any knowledge management process effectively useless. It is also recommended that this research is undertaken regularly, in order to review the progress of the knowledge management system. Introducing a knowledge management strategy to the Dubai Police Force is unlikely to be a one-off challenge; therefore, regular reviews, particularly on the general level of acceptance across departments, will be necessary.

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Appendices

Appendix 1: Questionnaire

Demographic data

Please provide the following information about yourself by marking one of the options for each question:

Gender

    (a) Male   (b) Female

Age:

    (a)   18-25   (b)   26-35   (c) 36-45   More than 45

Education:

    (a) High School   (b) Vocational/Diploma   (c) Bachelor   (d) Master   (e) Other

Responsibility in the police force

(a) Non managerial   (b) Line manager   (c) Middle management   d) senior management

Knowledge Management data

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
Does police force relies on the past data patterns for future	1	2	3	4	5	6	7

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decisions and actions?							
Does police force use past cases to solve new cases?							
Is past data useful for making new decisions, taking actions, and solve cases?							

How much past data is used and reused in new situations?

       (a) To a large extent   (b) to some extent   (c) hardly ever   (d) never

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
Do you think that knowledge resides in the minds of the people?	1	2	3	4	5	6	7

8. How much knowledge resides in the minds of the people (the knowledge which cannot be easily documented and expressed)?

(a) Less than 25%   (b) between 25 and 49%   (c) between 50 and 74%
      (d) above 75%

9. In your opinion, what is the most important Knowledge Management process in Dubai Police?

(a) Knowledge creation (b) Knowledge capture (c) Knowledge sharing

(d) Knowledge application   (e) All of the above

10. Knowledge Acquisition: This process of KM refers to the mechanisms involved in new knowledge creation and knowledge accumulation from existing knowledge.

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
	1	2	3	4	5	6	7
Dubai police has in place different mechanisms and processes to create new knowledge by using the previous knowledge							
Dubai police has in place different mechanisms and processes to distribute knowledge							
Dubai police has in place different mechanisms and processes to distribute knowledge within and across units and departments							
Dubai police has in place different mechanisms and processes to exchange							

knowledge within and across units and departments							
Dubai police has in place different mechanisms and processes to distribute and exchange knowledge from senior management to constables							
Dubai police has in place different technological mechanisms and processes to acquire latest technological developments for the purpose of enhancing effectiveness and efficiency							

11. Knowledge conversion: the process of rendering existing knowledge useful.

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
	1	2	3	4	5	6	7
Dubai police has in place different mechanisms and processes to filter knowledge							
Dubai police							

has in place different mechanisms and processes to transfer knowledge to the individuals							
Dubai police has in place different mechanisms and processes to absorb knowledge from individuals				·			
Dubai police has in place different mechanisms and processes to integrate different types of knowledge from different sources							
Dubai police has in place different mechanisms and processes to organize knowledge							
Dubai police has in place different mechanisms and processes to replace outdated knowledge							
Dubai police has in place							

different mechanisms and processes to convert knowledge into action							
Dubai police has in place different mechanisms and processes to distribute knowledge in the entire police force							

12. Knowledge application: the process of creating value from knowledge.

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
	1	2	3	4	5	6	7
Dubai police has in place different mechanisms and processes to learn from mistakes							
Dubai police has in place different mechanisms and processes to learn from experience							
Dubai police has in place different mechanisms and processes of using							

knowledge for problem solving and creating new knowledge							
Dubai police has in place different mechanisms and processes to make knowledge easily accessible to all who need							
Dubai police has in place different mechanisms and processes to use knowledge to improve efficiency							
Dubai police has in place different mechanisms and processes to find and use knowledge to compensate rapidly changing demands of the police force							

13. Knowledge Sharing

	Strongly	Mostly	Somewhat	Neither	Somewhat	Mostly	Strongly

	disagree	disagree	disagree	agree nor disagree	agree	agree	agree
	1	2	3	4	5	6	7
Dubai police has in place different mechanisms of knowledge sharing							
We share knowledge through formal and informal meetings within and across teams and department							
We share knowledge through formal and informal discussions within and across teams and department							
Knowledge about different cases is shared through internet portals and seminars							
Seniors often share their work experiences with us							
Dubai police invites experts to share their experiences to make us knowledgeable and efficient							
In case of any issue, we share							

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
knowledge with other units and departments							
Seniors welcome opinion from all organizational levels							

13. Culture of Dubai police

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
	1	2	3	4	5	6	7
Individuals have purpose to, and value knowledge management and sharing of best practices and knowledge							
Dubai police offers a supportive, encouraging, supportive, and open culture that facilitates knowledge management							
Individuals believe that knowledge management and sharing of best practices is the job of each and every individual							
The prevailing belief is that knowledge management is the task that cannot be designated to particular employees and experts							
Individuals are encouraged to give their opinions on different matters and make autonomous decisions							
Individuals can contact with one another in both formal and informal ways							
Dubai police encourages collaboration and cooperation amongst employees both through formal and informal ways							

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Individuals including top management are helpful and supportive							
Seniors can be easily accessed							
Individuals are willing to collaborate within and across teams and within and across departments							
Individuals seem satisfied with the ways and level of cooperation and collaboration							
Individuals trust each other and are trustworthy.							
Individuals show reciprocal faith in each other's ability							

14. Structure of Dubai police

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Mostly agree	Strongly agree
	1	2	3	4	5	6	7
Dubai police has explicit work rules and policies with a good degree of autonomy							
Individuals are not supposed to follow the defined task procedures rather the focus on getting the work done instead of following rules							
Dubai police does not rely on strict control and supervision of day-to-day activities							
Individuals are not forced to strictly follow the organizational hierarchies rather they are free to make their own decisions							
Dubai police do not focus on vertical integration and hierarchies							
Dubai police believes in horizontal integration and emphasize less on hierarchies							
Individuals have autonomy to do their work							
Individuals opinion are values and they are encouraged to participate in decision-making							
Individuals have the liberty to							

find solutions of issues from all the available channels and sources							

Appendix 2: Questionnaire Graphical Illustrations

Participants broken down by age and gender
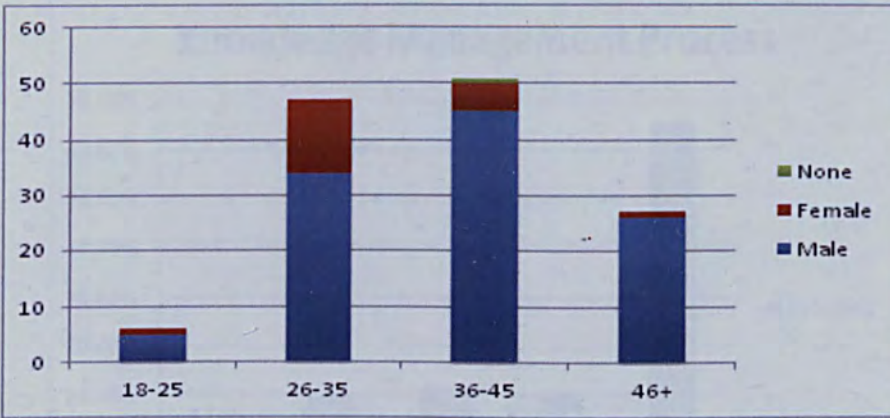
Participant Education
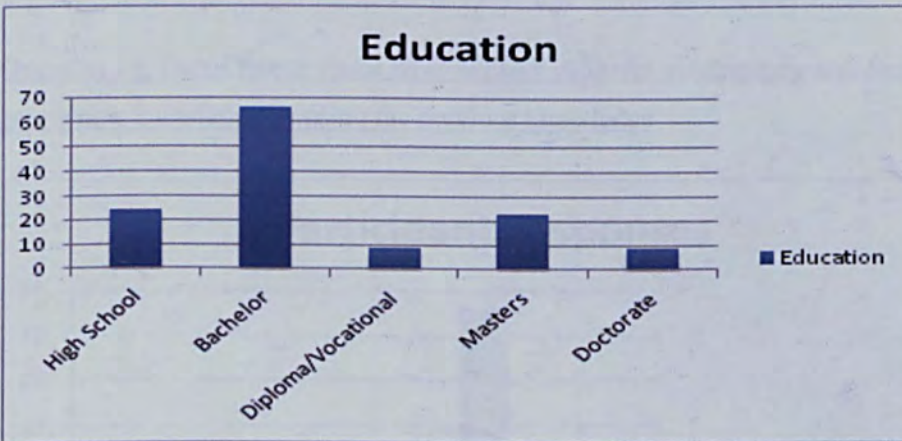
Participant breakdown by responsibility
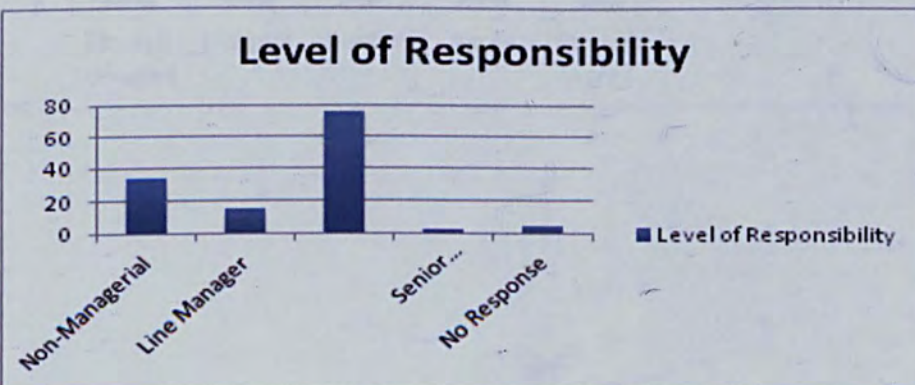
Question 8: In your opinion, what is the most important Knowledge Management process in the Dubai Police Force?

Knowledge Management Process

A bar chart titled "Knowledge Management Process" with the following values:
- Knowledge Creation: 3.10%
- Knowledge capture: 9.30%
- Knowledge Sharing: 11.63%
- Knowledge application: 10.85%
- All of the above: 65%

Legend: Column1

Question 10: Dubai Police Force have in place different mechanisms and processes to create new knowledge by using the previous knowledge

Participant Responses

A bar chart titled "Participant Responses" with the following approximate values:
- Strongly Disagree: ~3
- Disagree: ~8
- Neutral: ~20
- Agree: ~76
- Strongly Agree: ~22

Legend: Participant Responses
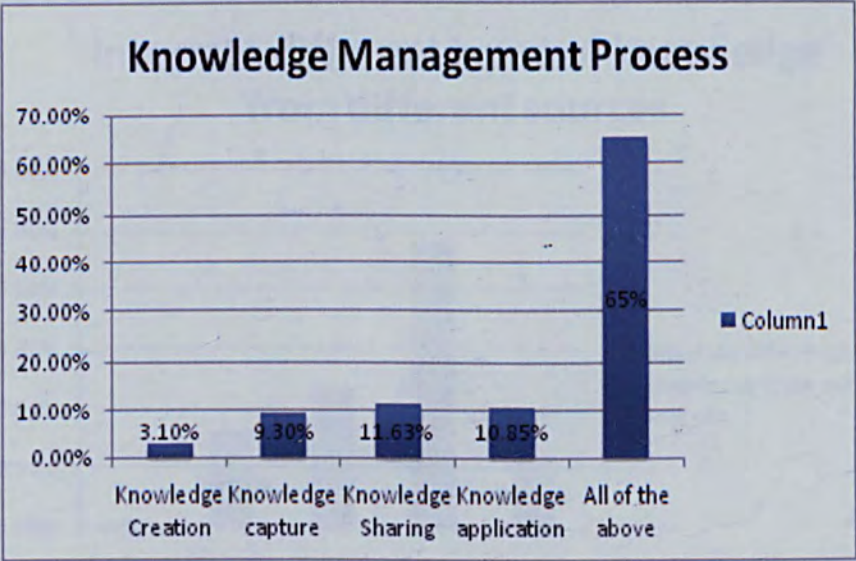
Dubai Police Force have in place different mechanisms and processes to integrate different types of knowledge from different sources
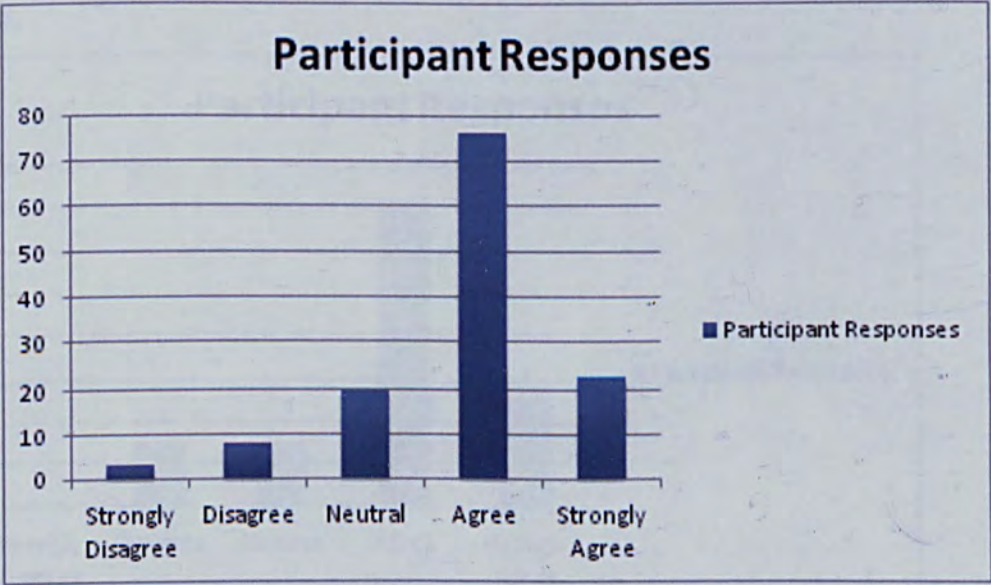
Integrate different types of knowledge from different sources

Question 22: Dubai Police Force has in place different and mechanisms to learn from mistakes.

Participant Responses

Dubai Police Force have in place different mechanisms and processes to learn from experience
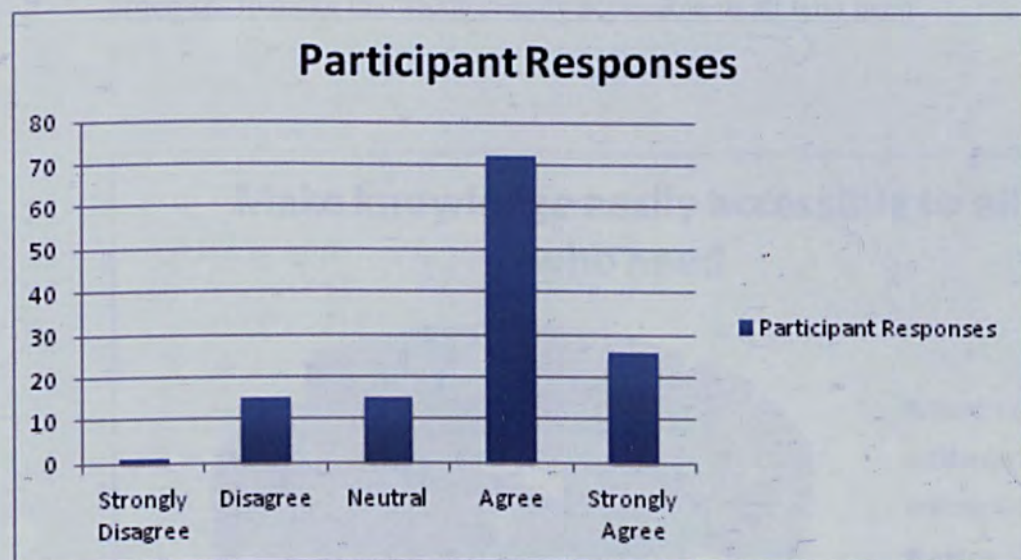
Learn from experience

Question 25: Dubai Police Force have in place different mechanisms and processes to make knowledge easily accessible to all who need
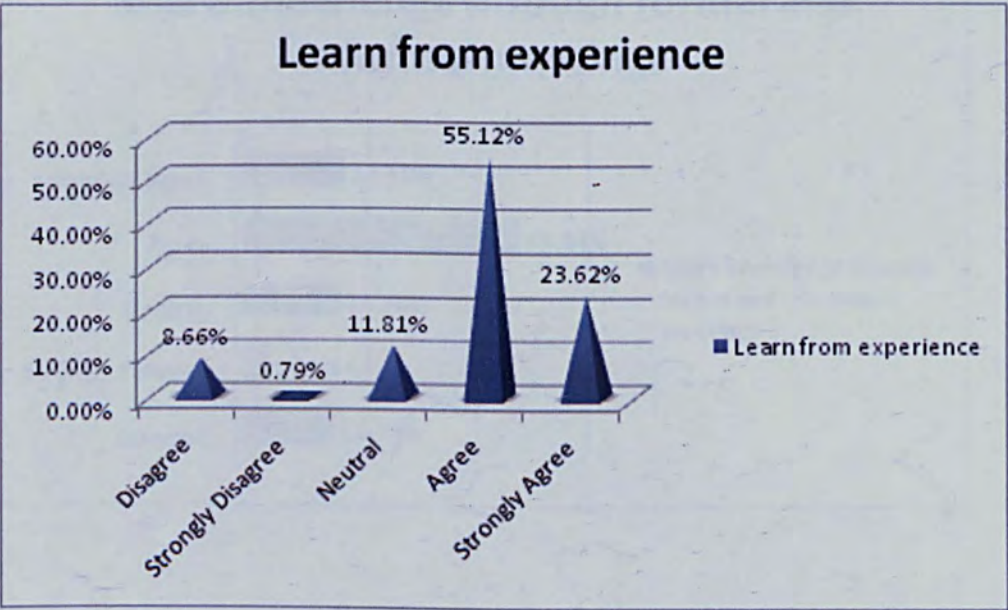
Make knowledge easily accessible to all who need

Question 26: Dubai Police Force share knowledge through formal and informal meetings/ discussions within and across teams and departments

Share knowledge through formal and informal meetings

Strongly Agree	17.05%
Agree	48.84%
Neutral	16.28%
Strongly disagree	3.10%
Disagree	14.73%

■ Share knowledge through formal and informal meetings

Question 28: Dubai police invites experts to share their experiences to make the employees more knowledgeable and efficient

Invites experts to share their experiences

6.98%
23.26%
1.55%
17.83%
50.39%

■ Disagree
■ Strongly Disagree
■ Neutral
■ Agree
■ Strongly Agree

Offers a supportive, encouraging, and open culture that facilitates KM

22.48%
6.20%   47.29%
24.03%

37.21%
10.08%

- Disagree
- Strongly Disagree
- Neutral
- Agree
- Strongly Agree
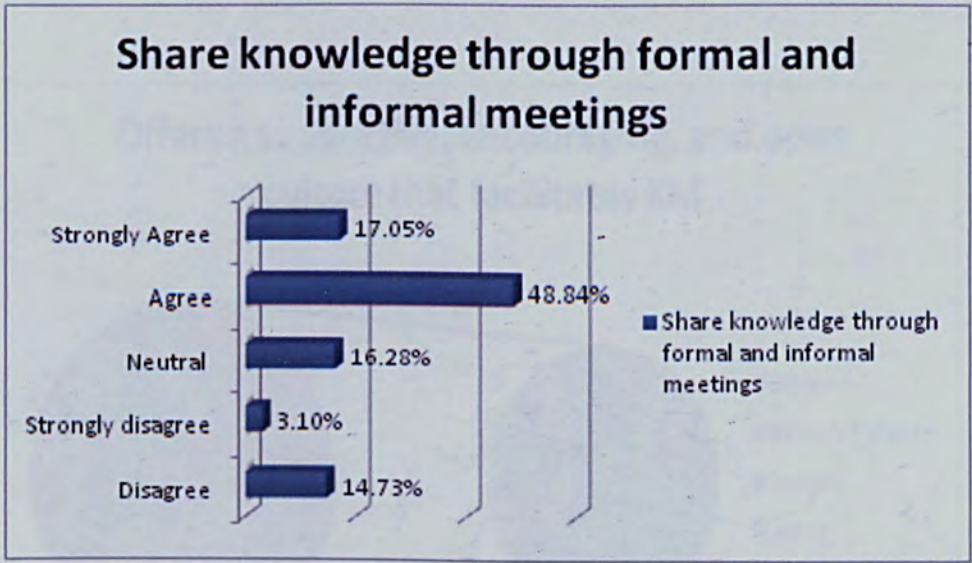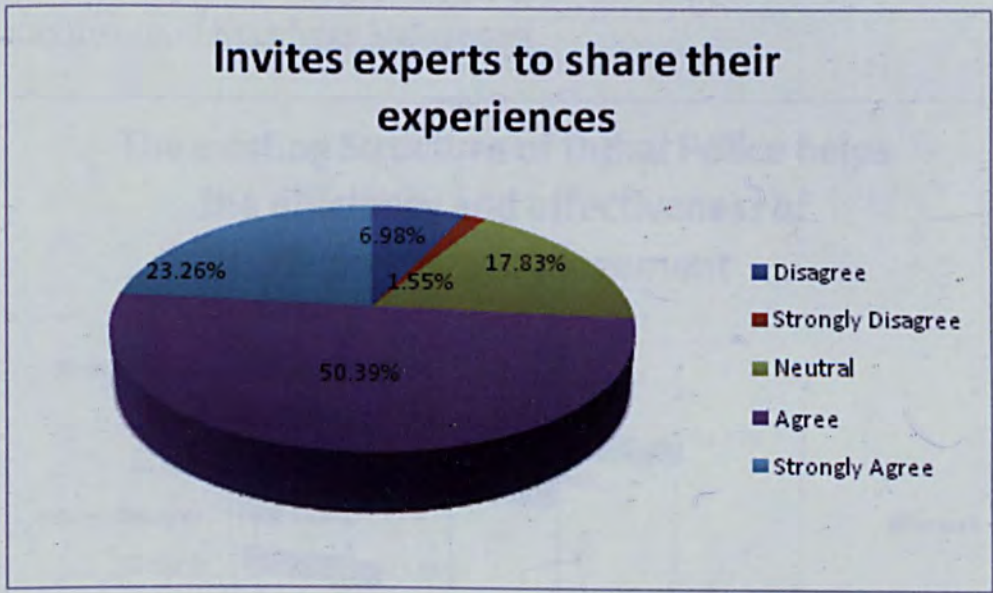
The existing Structure of Dubai Police Force helps the efficiency and
effectiveness of Knowledge Management

The existing Structure of Dubai Police helps the efficiency and effectiveness of Knowledge Management

Strongly Agree   11.54%
Agree   40.77%
Neutral   30%
Strongly Disagree 3.85%
Disagree   13.85%

- Series1

0.00%   10.00%   20.00%   30.00%   40.00%   50.00%
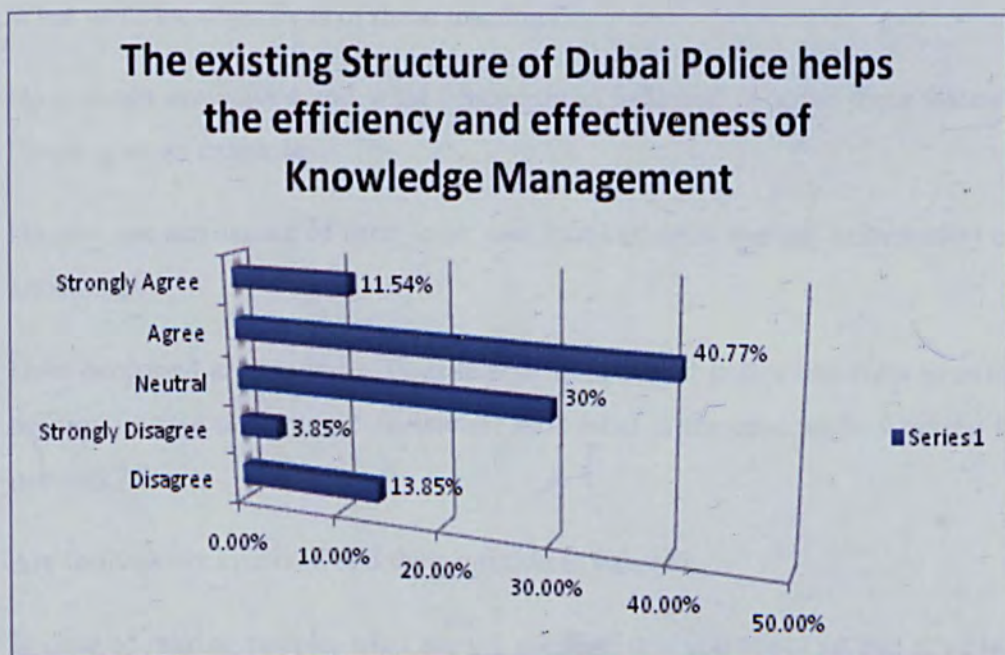
Appendix 3: Interview Question

Set of Semi-Structured questions

- What is the current status of Knowledge Management in Dubai?

- Does Dubai police recognize knowledge as a part of their asset base?

- What does Dubai police think of Knowledge Management (KM)?

- What do you think of stored knowledge in Dubai police?

- What is the attitude of senior management in terms of KM?

- Please describe the culture of Dubai police in relation with KM. Does it support KM?

- What are the key cultural and structural barriers in knowledge management in Dubai police?

- What are the different types of technologies used in Dubai police?

- What are the problems faced by Dubai police in using IT for Knowledge Management?

- Was there any training within the force, how often these were held?

- What were the objectives of these training?

- How issues are solved and what procedure is followed to solve these issues? Please give an example

- Do you see any issues of time, cost, and motivation in sharing information or knowledge?

- How decisions are made i.e. does everyone in Dubai police has right to offer opinion in case of strategic decisions? And what is the case while working in network?

- Are individuals involved and their opinion is valued?

- In case of retiring people, what are the mechanisms you apply so that does not face any issues?

Dubai Police: Strategic Ontological Police Force Knowledge Management Framework (SOPFKMf)

Abstract

Knowledge management is the secret used by all the successful companies to obtain competitive advantage and improve work performance. This paper will discuss the relevance of developing Strategic Ontological Knowledge Management Framework within the Dubai Police in order to achieve optimal performance. Establishing knowledge management structure within an intricate operation, such as the Dubai Police, will not only place a large challenge to install best practice within the current operational framework. It is also a vital need in order to promote progression and competitive advantage within this industry.

To perfect the outcome of this framework, this paper will present the core issues that are faced within the force and evaluate the different concepts about knowledge, knowledge management, its types and the relevant ontology in order to comprehend the methods that can be helpful for the force in enhancing their strengths, achieving their goals and building a better understanding of knowledge.

Keywords: knowledge management, framework, competitive advantage, ontology.

1.0 Introduction

It is extensively recognized that an effective knowledge management provides companies with competitive advantage and improved performance (*C. Small, C. and A. Sage, 2005, p.153-169*). Knowledge is defined to many organizations as "a set of organized statements of facts or ideas, presenting a reasoned judgment or an experimental result, which is transmitted to others through some communication medium in some systematic form" (*Bell, 1973, quoted in Thompson and Walsham, 2004, p.725*). The upper management in Dubai Police has concerns of how to manage and circulate vital information to the whole force and create a process that will be suitable for the organization. This paper will discuss the importance of producing Strategic Ontological Knowledge Management Framework within the force discussing how it will result in an effective understanding and management of the police force, while improving work performance.

2.0 Dubai Police Background and Rationale

Before outlining the use of knowledge and knowledge management in any organization, it is essential to first understand the many issues and problems that need to be tackled and resolved in any organization.

2.1 Dubai Police Background and Organization Structure

Dubai Police Force is a complex organization that dates back to June 1956. Dubai Police covers only the city Dubai in the UAE. Dubai Police Force consists of 25,000 employees and has many departments as shown in (Figure 1 and 2). Having many separate departments is a way of defining roles; however, it presents a potential difficulty for sharing knowledge between the departments. Although they are currently circulating Knowledge Management through the intranet in an internal website that can be accessed by all the employees unfortunately, it lacks vital information that can be useful for all the officers.

```
 ⊙ Organizational Structure

        Chief of  Police and General Security

        Deputy Chief of Dubai and General Security

        Dubai Police General Commander

                        General Department of State Security

        Deputy of Dubai Police General Commander


   HQ's Regulatory Office

                                Crisis & Disaster  Management Team
   Decision Making Support Center
```

General Departments

General Department of Organization Protective Security & Emergency	General Department of Criminal Investigation
General Department of Legal and Disciplinary Inspection	Police Stations
General Department of Finance	General Department of Forensic Sciences and Criminology
Dubai Police Academy	General Department of Airports Security
General Department of Human Resources	General Department of Administrative Affairs
General Department of Community Services	General Department of Anti Narcotic
General Department of Services & Supplies	General Department of Operations
General Department of E-Services	General Department of Traffic
General Department of Total Quality	General Department of Punitive Establishment

Figure 0.1 Dubai Police Organization Structure (Dubai Police)
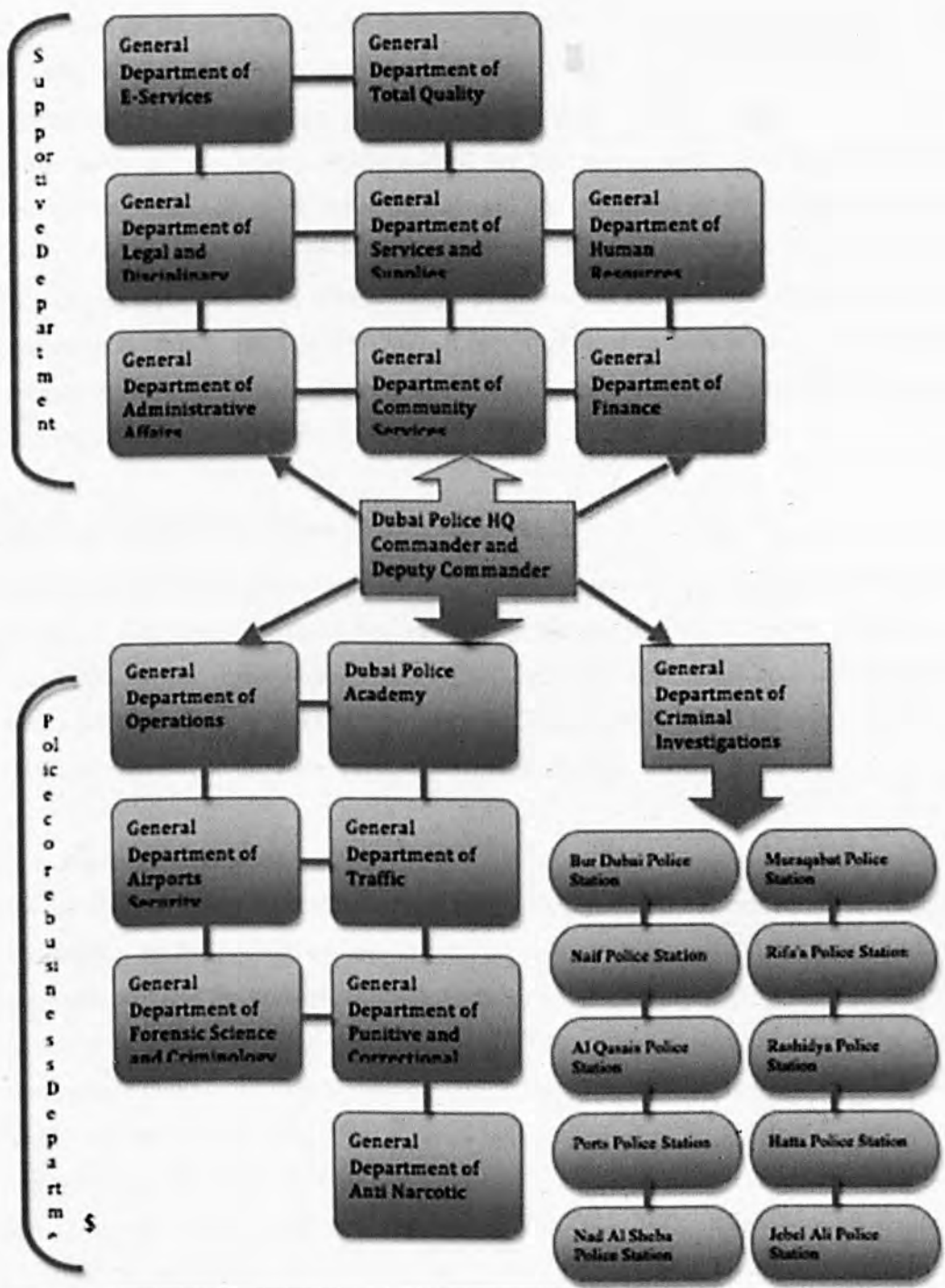
Figure 0.2 Supportive and core business Dubai police force structure

2.2 Rationale

As presented in (Figure 1 and 2) Dubai Police has many departments that work on their own responsibility resulting to the lack of sharing vital information between them. Košturiak also noted that most organizations concentrate on the physical activities being carried out neglecting how the flow knowledge throughout the organization (*Košturiak, 2010, p.51-63*). In the case of police activities,

which focus on the processing of individuals, questioning, investigate and analyzing criminal behavior after they have been arrested. Unfortunately they do not share the information they gained to other departments in the force, not knowing how useful it could be to the others. In every organization poses its own corporate governance, which installs the best practices for operational framework within the organization, which are to be installed managed and promoted by the Human Resource department. However, with regards to the police force the knowledge management structure and ethos needs to run much deeper and needs to be inherently linked to how the police force is providing the service that is required of it *(Paiva, 2002, p. 381-389)*. It is a vital need to have a strong knowledge management structure in the Police Force allowing all officers to have access to it that will benefit the force and make their work more efficient.

3.0 Aims and Objectives of the Research

In order to establish a comprehensive knowledge management framework in Dubai Police there must be an understanding of the needs and demands of the operational framework in the police force. The overall aim of this research paper is to take a strategic ontological approach in order to create a framework that works, is flexible, can adapt to change, and is within the current budget capabilities, while also adhering to the current standard of rules. *(Tynan, 1999, p. 8-61)*

3.1 Knowledge definitions

KM has many different meanings this was all revealed in the KM Literature review. Matthews defines "knowledge, as the postulation and practice of new relations and as an outcome of organizational processes, provides the greatest leverage for firms to survive, compete, and conquer greater heights in the world of business" *(Mathews, J. 2012, p.73)*. Most discussions of knowledge and knowledge management make a difference between two types of knowledge: extrinsic/explicit and elicit/tacit. "Explicit knowledge is that form of knowledge which can be transferred through language and mathematical modeling. It is implicitly contained in all kinds of knowledge types: know-what, know-why, know-how, and know-who" *(Bratianu & Orzea, 2012, p.16)*. McCall define the isolated attributes of explicit/extrinsic knowledge. In its extrinsic form knowledge indicate organizational knowledge that is codifiable and is routinely found in computer systems, databases, definitions, enterprise repositories, policies, procedures and training course content *(McCall, 2008, p.77-101)*. Intrinsic knowledge is often referred to as tacit knowledge. *(Srdoc,A. 2005, p.283)* Srdoc defines tacit knowledge as "personal knowledge embedded in individual experience". From a philosophical perspective knowledge is very complex, Klein defined knowledge as: "Culture is the knowledge we practice, and it is characterized especially in the interpretation and judgment facets of knowledge, of which there are always three: information, interpretation, and judgment" *(Klein, D. 2012, p. 283)*.

In order for the police force to have a better work performance they clearly need to use both types of knowledge that is mentioned above in their workflow and develop an efficient KM Framework that will help employees to share the knowledge they have with their colleagues. This will be very challenging when dealing with an organization that has numerous different roles within it when comes to employees' embracing and accepting the change.

3.2 Social Ontologies

Social ontology has a variety of definitions that exist. The basic definition is "ontology describes the result of a process of negotiation and reflects the reality in form of a formal model" *(I. Adamson 2005, pp. 987- 1000.)* In other words having a clear understanding that is relevant to the organization about the knowledge, and to smoothen the process with the help of ontologies combine them all together with the storage and retrieval of knowledge. The representation of knowledge in the form of formal models is the basic purpose served by ontologies *(Alazami & Zairi, 2003, p. 199-204).* Researchers suggest that before individuals within organizations gain a certain level of understanding related to the knowledge claims, they have to first agree on the ontological distinctions of the symbols containing and representing the knowledge claims *(Avison, 1999, p. 94-97).*

According to *(Martins, N. 2009, p.323-344)* the social ontology framework investigates social aspects of organizations and their properties. The basic reason organizations developing social ontological frameworks is to inquire KM within organizations and to observe the organizational behavior to gain a clear understanding about the social behavior of the people working within the boundaries of the organizations *(Bennett, R. & Garbriel,1999, p. 212-225).* Usually, social ontology theory is separated into two different groups – individualism and societism, where both groups have been used to explain organizations. Individualists are resolute and constructed by individuals to maintain that social phenomena "All social matters ultimately consist in and are explained by facts about people — either individual people or groups thereof *(Schatzki, 2005, p.467).*

In conclusion the social ontological framework is particularly helpful because it facilitates open communication between individuals within organizations by providing them with common knowledge about a certain concept or domain as well as the permanent organizational structures, the network of collaborations and the interdependencies between organizations.

4.0 Research Methodology

To create the perfect framework it is necessary to gather the appropriate data that is required in order to create the framework using the right methodology from a theoretical and practical point of view.

Secondary and primary data collections both come from the practical point of view. The secondary research will be from an analysis of knowledge management theories and researching from all academic resources and database in the form of literature review. Using questionnaires and interviews

as the primary research methodology to supplement the secondary research, however the answers may be bias from a personal point of view. For the primary research the purposes of conducting, the method referred to as the Delphi Model will be used, in an attempt to obtain the best possible picture of the thoughts and feelings of the individuals being questioned.

5.0 Action Research and Case Study

This section of the paper is about the primary research that has been carried out so far. Questionnaires (See Appendix) were constructed to provide preliminary findings. 36 questions were sent out to a large number of respondents, across the Dubai Police and a total of 131 were received back.

Based on these preliminary findings, a case study analysis will be undertaken considering the specific use that individuals make of the current knowledge management structures and the way in which their day-to-day lives would, potentially, be changed by a more suitable structure being put in place. This is undertaken because the individuals' perceptions may be very different from the reality. These will then be analyzed to produce a foundation for how these findings can then be furthered to produce a new structure that will be suitable for the Dubai Police Force.

6.0 Developing a framework

To create the framework the first step will be is looking at the general culture and the way in which the organization works. Throughout both the secondary and primary research, it became apparent that there needs to be a general ethos of co-operation and support for a knowledge management system, if the actual infrastructure which is put in place is to be readily accepted (*Hsieh, et al.,* 2002).

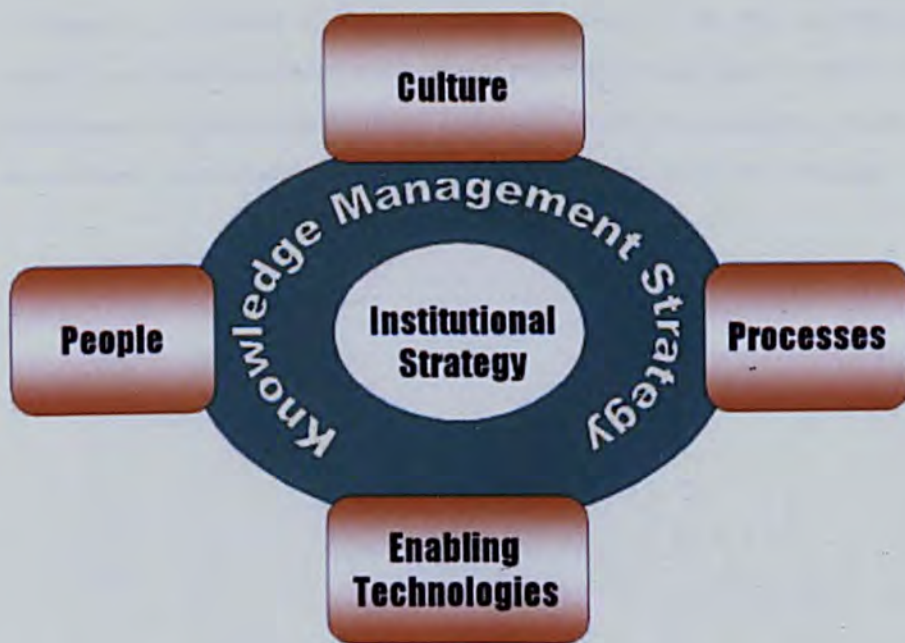The chosen knowledge management framework is therefore as follows:

Figure 3 KM Framework (*HUI King-Chung, Ziggy 2001*)

This shows the need to consider people, culture, processes as well as the enabling technologies in order to create the strategy rather than simply creating a structure and expecting the workforce to fall in line. Based on this, a greater emphasis will be placed on changing the working approaches taken by individuals, within the police force; this will have to be driven from the top management team, including potentially changing the way in which these targets are set, so that individual members of staff are more encouraged to work for others, rather than merely gathering information that is relevant to themselves and not just recording this information for the benefit of others, in the future (*Martinez*, 1998). Once these cultures have been put in place, it will then be possible to establish a computerized system that will support the newly found knowledge management structure, enabling knowledge to be centered on the computerized system and specific training will be necessary to ensure that all individuals are comfortable in the use of the new system (*Klobas*, 1997). Knowledge management is so much more than simply having a computerized program that allows the collection and dissemination of data. It requires a complete culture change and this will, therefore, be central to the ongoing agenda, within the Dubai Police Force (*Wild et al.* 2002).

In summary, looking at knowledge management, specifically in the context of commercial organizations and how they can use the knowledge within their company, which is the culmination of raw data and the experiences of the individuals, within the team, to achieve a competitive advantage over others. However, it became apparent that there was a culture issue in Dubai Police that needed to be addressed by the management team, before the infrastructure can be put in place.

Once this is undertaken, the knowledge management system that will be put in place will clearly centre on information technology, due to the practical difficulties of having several different

departments, in several different locations. However, it has also become apparent that individuals wish to see other knowledge management processes which may be slightly less formal, such as cross departmental meetings taking place, and easily, both for management teams, in terms of bringing the departments together and ensuring ongoing acceptance of this new strategy.

Appendix:

The Questionnaires:

1. Demographic data

Please provide the following information about yourself by marking one of the options for each question:

1. Gender

    (a) Male   (b) Female

2. Age:

    (a)   18-25   (b)   26-35   (c) 36-45   More than 45

3. Education:

(a) High School   (b) Vocational/Diploma   (c) Bachelor   (d) Masters (e) Doctorate

4.Responsibility in the police force

(a) Non managerial   (b) Line manager   (c) Middle management   d) senior management

2. Knowledge Management data

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5. Does police force relies on the past data patterns for future decisions and actions?	1	2	3	4	5
6. Does police force use past cases to solve new cases make new decisions and take action?					

7. How much past data is used and reused in new situations?

a. 0% b. 25% c. 50% d. 75% e.100%

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
14. Dubai Police have the sufficient amount of technology to be able to manage the knowledge management.					

Knowledge conversion: the process of rendering existing knowledge useful.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5
15. Dubai police has in place different mechanisms and processes to filter knowledge					
16. Dubai police has in place different mechanisms and processes to transfer knowledge to the individuals					
17. Dubai police has in place different mechanisms and processes to absorb knowledge from individuals					
18. Dubai police has in place different mechanisms and processes to integrate different types of knowledge from different sources					
19. Dubai police has in place different mechanisms and processes to organize knowledge					
20. Dubai police has in place different mechanisms and processes to replace outdated knowledge					
21. Dubai police has in place different mechanisms and processes to convert knowledge into action					

. Knowledge application: the process of creating value from knowledge.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5

3

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
8. Do you think that knowledge resides in the minds of the people are the most important knowledge?	1	2	3	4	5

9. In your opinion, what is the most important Knowledge Management process in Dubai Police?

(a) Knowledge creation   (b) Knowledge capture   (c) Knowledge sharing

(d) Knowledge application   (e) All of the above

Knowledge Acquisition: This process of KM refers to the mechanisms involved in new knowledge creation and knowledge accumulation from existing knowledge.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5
10. Dubai police has in place different mechanisms and processes to create new knowledge by using the previous knowledge					
11. Dubai police has in place different mechanisms and processes to distribute knowledge					
12. Dubai police has in place different mechanisms and processes to distribute knowledge within and across units and departments					
13. Dubai police has in place different mechanisms and processes to exchange knowledge within and across units and departments					

2

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5
14. Dubai Police have the sufficient amount of technology to be able to manage the knowledge management.					

Knowledge conversion: the process of rendering existing knowledge useful.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5
15. Dubai police has in place different mechanisms and processes to filter knowledge					
16. Dubai police has in place different mechanisms and processes to transfer knowledge to the individuals					
17. Dubai police has in place different mechanisms and processes to absorb knowledge from individuals					
18. Dubai police has in place different mechanisms and processes to integrate different types of knowledge from different sources					
19. Dubai police has in place different mechanisms and processes to organize knowledge					
20. Dubai police has in place different mechanisms and processes to replace outdated knowledge					
21. Dubai police has in place different mechanisms and processes to convert knowledge into action					

. Knowledge application: the process of creating value from knowledge.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5

3

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
22. Dubai police has in place different mechanisms and processes to learn from mistakes					
23. Dubai police has in place different mechanisms and processes to learn from experience					
24. Dubai police has in place different mechanisms and processes of using knowledge for problem solving and creating new knowledge					
25. Dubai police has in place different mechanisms and processes to make knowledge easily accessible to all who need					

Knowledge Sharing

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5
26. We share knowledge through formal and informal meetings/discussions within and across teams and department					
27. Seniors often share their work experiences with us					
28. Dubai police invites experts to share their experiences to make us knowledgeable and efficient					
29. In case of any issue, we share knowledge with other units and departments					

Culture of Dubai police

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	1	2	3	4	5
30. Employees know the Value and importance of Knowledge Management.					

4

31.Dubai police offers a supportive, encouraging, and open culture that facilitates knowledge management					
32. The prevailing belief is that knowledge management is the task that cannot be designated to particular employees and experts					
33. Sharing Knowledge between individuals may lead to distrust amongst them					

Structure of Dubai police

	Strongly disagree	Mostly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree
	1	2	3	4	5
34. Dubai police has explicit work rules and policies with a good degree of autonomy					
35. The existing Structure of Dubai Police helps the efficiency and effectiveness of Knowledge Management					
36.Individuals have the liberty to find solutions of issues from all the available channels and sources					

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Alazami, M. & Zairi, M. (2003) *'Knowledge Management Critical Success Factors'* Total Quality Management, 14(2), pp. 199-204.

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