

**THE IMPACT OF ORGANISATIONAL CHANGE INERTIA ON
PUBLIC SECTOR KNOWLEDGE PRACTICES ADOPTION
CASE OF UAE**

by
Mouza Al Badi

A thesis submitted in partial fulfilment for the degree of
Doctor of Business Administration

**Henley Business School
University of Reading**

2018

Declaration

I confirm that this is my own work and that the use of all material from other sources has been properly and fully acknowledged.

Name: Mouza Saeed Al Badi

Date: 6th June 2018

Signature:..

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ABSTRACT

Purpose: Organisational research shows that an organisation can maintain its performance and drive value by implementing knowledge management (KM) practices adoption. However, the literature also shows that organisational change inertia¹ inhibits KM practices adoption within an organisation. Hence, this research thesis will empirically investigate the nature of the relationship between change inertia and KM practices adoption. It further examines if organisational culture and senior executives' skills and capabilities moderate the impact of change inertia on KM practices adoption. The empirical study is based on an educational organisation within the UAE public sector.

Methodology/approach: In order to achieve the purpose stated above, semi-structured interviews were used to gather qualitative data. Interviews participants included top- and middle-level managers from operational, management and strategic levels. The total number of participants included in the study was 17, equally representing three managerial levels of the organisation. A thematic analysis approach was used to analyse the data; the interview data was coded in (Nvivo11) qualitative data analysis computer software.

Findings: The results reveal an empirical confirmation of the relationships between KM practices adoption in public sector organisations, organisational change inertia, organisational culture, and senior executives' skills and capabilities. This study suggests that organisational culture and senior executives' skills could be an intervening mechanism between change inertia and KM practices adoption in public sector organisations.

In addition, the data from the interviews suggests that integrating the KM practices requires a higher level of support from the public sector policy makers who are in charge of developing the public sector national culture, producers and policies. This will support the senior executives' power to drive change inside the public sector organisations, and reduce change inertia and bureaucratic culture procedures. With regard to the KM practices, the researcher suggests that KM practices adoption should be assigned as one of the senior executive's responsibilities and duties. The results also highlight the importance of KM practices adoption in driving efficiency and performance. Adopting knowledge practices inside an organisation is a first step toward developing a knowledge-based organisation, which views knowledge as shared resources for all individuals in an organisation to drive organisational

¹ The terms "organisational change inertia", "change inertia" and "organisational inertia" are used interchangeably throughout this thesis.

effectiveness. The researcher concludes, although both culture and senior executives may have an influence over the impact of change inertia to the public sector KM practices adoption, this influence remains limited without any real commitment towards developing a national culture at the higher level of the government in order to foster change of culture towards knowledge-based organisations.

Research contributions: The study results provide new insights into the relationships between the various study constraints. The research contributions were evident in both the managerial and theoretical contributions. By applying these models to appropriate field situations, both practitioners and academics may be able to improve current practices relating to how knowledge is adopted within public sector organisations. Finally, like any other research undertaking, this study identified a list of limitations related to sample size, study settings and the range of the variables covered in the study.

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To my mother, an eternal cheerleader, interested, encouraging and enthusiastic: you were always keen to know what I was doing and how I was proceeding, although it is likely that you never grasped what it was all about! I will always remember your screams of joy whenever a significant milestone was reached. I am grateful to my brothers and sisters, who have provided me with moral and emotional support in my life. I am also grateful to my other family members and friends who have supported me along the way.

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Table of Abbreviations

AED	Arab Emirati Dirham
APQC	American Productivity and Quality Centre
DIAC	Dubai International Academic City
DKV	Dubai Knowledge Village
EXPO2020	Universal scale Registered Exposition
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GII	Global Innovation Index
IMF	International Monetary Fund
IT	Information Technology
KM	Knowledge Management
KMS	Knowledge Management Systems
KPIs	Key Performance Indicators
NSM	New School Model
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of the Petroleum Exporting Countries
RTA	Road Transportation Authority
PUMA	Public Management Committee
SECI	Socialisation-Externalisation-Internalisation-Combination
SME	Small- and Medium-sized Enterprises
UAE	United Arab Emirates
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNPAN	United Nations Public Administration Network
US	United States
Vision 2021	United Arab Emirates 2021 strategy plan

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1 INTRODUCTION

This Doctor of Business Administration (DBA) research thesis investigates the impact of organisational change inertia on knowledge management (KM) practices adoption within the public sector organisations operating in the United Arab Emirates (UAE). The key objective of this investigation is to explore the impact of organisational culture and senior executives' skills and capabilities in reducing the negative effect of organisational inertia, and thereby support the adoption of KM practices in UAE public sector organisations.

The researcher believes that one of the major factors in delivering successful KM practices adoption is raising the awareness of public sector organisations about the importance of KM, not only among senior executives but also among frontline employees. The basic concept of KM depends on the organisational capacity of acquiring new information and processes to knowledge. The researcher points out that this can be achieved through the front line employees, who are always in contact and in direct interaction with both internal and external organisations environments, such as customers, suppliers, partners and the management of the organisation.

However, the researcher notices from her previous experience in public sector organisations for the past 18 years that driving change inside public sector organisations is not an easy task. Many factors impact organisational change such as change inertia, which has been accumulating over years and years of bureaucratic culture, routines, authority structures, data access control and, of course, the senior executives' desire for change.

While writing this thesis, the researcher noticed that the KM literature has several examples of successful KM adoption in the private sector. However, with regard to the public sector, the KM literature tends to focus on the following: the reasons behind the failure of KM adoption, barriers to change and obstacles that face KM adoption in the public sector. Delving deeper into the public sector KM literature, the researcher found that most of the studies refer to the public sector culture, rigidity, routines and change inertia as the main

factors behind KM practices failures (Collinson et al., 2006; Taylor & Wright, 2004; Rotmans et al., 2001). Having worked for the past 18 years in public sector, I can assert with confidence that the KM practices concept is not new to the industry. In fact, public sector organisations have always practised KM in various guises, such as decision-making processes which requires a huge data and information processing before taking a decision. Other guises include a new employee's training and development, a junior employee's monitoring program and public sector employee rotation to different sections or other organisations even though these guises are in most cases neither systematic or deliberate. The researcher believes that public sector organisations should invest more in KM practices adoption to become an essential part of organisational culture. Moreover, there is a huge role for senior executives to drive this change through reducing the internal organisation inertia and to adopt the new changes and KM practices in the public sector. The following sections of this chapter present the study aim, problem and research questions, describe its significance and present the research methodology used.

1.1 Thesis Overview

During the past few decades, many researchers have argued that knowledge management (KM) is a source for strategic performance for both private and public sector organisations (Bagnoli & Vedovato, 2014; Nonaka et al., 2014; Davenport, 2013). Researchers like Nonaka (1994) and Sveiby (1997) have suggested that managers of organisations should take serious steps to explore their organisation's intangible resources and to employ those resources in creating a knowledge-based organisation, in order to drive innovation and performance.

Typically, management theories were first tested in large private companies, and once they had gained acceptance they were implemented by other sectors, such as the public sector (McAdam & Reid, 2000). A decade of practising in private companies serves as clear evidence that KM is not just another management fad as some critics have claimed (Koenig, 2004; Alavi, 1999); it has passed the fad stage and is here to stay (Cong & Pandya, 2003).

Despite the differences between public and private sector organisations, the underlying premise is that public sector KM has been rapidly recognised as a driver of efficiency, effectiveness and innovation within agencies and also in governmental networks (Massaro et al., 2015; Zack et al., 2009; Nonaka et al., 2006; OECD, 2003). Governments have realised the importance of making knowledge explicit and have therefore made changes to policy and have enhanced service delivery to the public (Moffett & Walker, 2015). Knowledge management is now prominent in the public sector's strategy, planning, consultation and implementation plans (OECD, 2001; 2003). Other researchers such as Theocharis & Tsihrintzis (2016), Massaro et al. (2015) and Buheji et al. (2014) have addressed the role of KM in fostering public sector competencies, innovation and performance driving. This indicates the public sector's interest in seeking new approaches to improve its organisational performance.

The United Arab Emirates (UAE) has recently launched the Vision 2021-government's national agenda, which aims to achieve a high non-oil Real GDP growth, increase innovation, research and development, encouraging high value-adding sectors (<http://vision2021.ae>). Since then, the UAE public sector has witnessed a growing interest emerge in developing knowledge-based organisations (Al Khouri, 2014; Al Ammary, 2008). While it seems clear that KM is significant to the public sector organisations' performance, not much empirical evidence on the subject can be found in the available literature (Valmohammadi et al., 2015; Rasula et al., 2012; Lwoga 2011; Zack et al., 2009). This research aims to explore how KM practices adoption is affected by the public sector organisations' inertia in the UAE.

Moreover, Omotayo (2015) and Al Khouri (2014) argue that the lack of accurate understanding of KM practices in relation to other organisation development practices results in a limited KM success in the public sector. Thus, this research will investigate how organisational inertia affects the knowledge practices adoption within the public sector organisation, and also what role do organisational culture and senior executives' skills and

capabilities play in minimising the organisational inertia in the UAE public sector. The final conclusion of this research will provide the UAE public sector management with a better understanding on how to better deploy their organisation's KM practices to drive competitive advantage.

1.1.1 Research Problem

The research problem covered in this study is in the field of KM practices adoption and draws on the need to understand what is the role of the public sector's organisational culture, as well as that of senior executives' skills and capabilities', in minimising organisational inertia to successfully adopt KM practices, so that it could be used to improve UAE public sector organisations' performance.

This study will contribute to previous studies on KM that have examined the relevant concepts of knowledge adoption practices (e.g. knowledge sharing and knowledge fairs) in public sector organisations (Roy et al., 2012; López-Nicolas et al., 2011; Zhang et al., 2010). Moreover, many public sector organisations are trying to adopt new solutions to improve their organisation's performance and service quality (Van Dooren et al., 2015; Brown et al., 2013; Hunter & Nielsen, 2013).

In the literature review chapter, KM practices adoption emerges as a potential solution for the public sector organisations to drive efficiency and to ensure higher sustainability (Osborne et al., 2015; Gloet et al., 2014). Furthermore, Leonard-Barton (1995) has stressed the importance of sustaining ability and efficiency of those organisations through KM adoption practices, which actualise economic value through a collection of knowledge assets. Other researchers pointed to the important role of KM as a valuable internal driver for raising organisational innovation potential and performance (Aggestam, 2015; Birasnav, 2014; Sultan, 2013; Raadschelders, 2005).

However, many public sector KM initiatives have failed due to weak implementation strategies that led to uncoordinated KM practices adoption and high organisational change inertia (Kim et al., 2014; Greco et al., 2013; Al-Adaileh & Al-Atawi, 2011; Siemieniuch &

Sinclair, 2004). Further clarification in the KM literature is needed to understand the public sector organisational change inertia and KM adoption practices (Grimaldi & Ripa, 2011). The literature pointed to the public sector organisations' environments as a unique and particular context in which their stakeholders and accountability differ significantly from those of the private sector (Arora, 2011; Chawla & Joshi, 2010). Thus, public sector organisations should not import KM models and practices from the private sector, that have been developed without taking into consideration the unique and particular culture of the public sector organisations (UNPAN, 2007). In my opinion, public sector organisations should focus on changing their internal culture and routines in order to reduce internal inertia towards KM practices adoption. As changing or ending an old habit is never easy for an individual, one can imagine just how it will be difficult for an organisation to do so in the public sector setting. Hence, I hope through this research to better understand how both organisational culture and senior executives' skills and capabilities can reduce change inertia in public sector organisations and deliver a successful KM practices adoption.

The study will conclude with an analysis of the study constraints (see the conceptual model) to answer the research questions of how organisational change inertia impacts KM practices adoption in public sector, and also to develop a deeper understanding of what role do organisational culture and the skills and capability of senior executives play in driving KM practices adoption and changing public sector inertia. In order to account for the gaps listed above, the aim and objectives of this research are discussed in the following section.

1.1.2 Research Aim

The major aim of this research proposal is to investigate how organisational inertia impacts upon the knowledge practices adoption within a public sector organisation. It analyses the role of both organisational culture and the skills and capability of senior executives in driving KM practices adoption and changing public sector organisational inertia. Thus, the research will support public sector organisation's management in illuminating KM best practices adoption, and how to utilise organisational culture and senior executives' skills and

capabilities in facing the challenges of organisational change inertia. This will be achieved through a qualitative examination of change inertia in relation to the KM practice adoption in the UAE's public sector, where change inertia is considered as an independent variable and the KM practice adoption as the dependent variable.

1.1.3 Research Objectives

To achieve this aim, the following three underlying objectives have to be met in relation to the KM practice adoption inside UAE's public sector. The researcher will carry out a critical review of the literature to develop a frame of reference that would contribute to the understanding of the current gaps in the relation between KM adoption practices and organisations' change inertia. The reference framework looks at the relationship between KM adoption practices and change inertia, but also at how organisational culture and senior executives' skills influence that relationship ; the following steps will be taken to achieve this objective:

- Develop an initial conceptual model for examining how organisational inertia impacts the knowledge practices adoption inside the public sector organisation based on an investigation of the gaps in the KM literature. The public sector organisations, in a developing country setting, are chosen as the context of this research since this is an area that is not well addressed in the literature.
- Investigate the role of both organisational culture and senior executives' skills and capabilities role in driving knowledge practices adoption and reducing public sector organisational change inertia.
- Empirically examine the relationships between organisational inertia and KM practices adoption in the context of public sector organisations. This can be achieved by running a qualitative data analysis to understand the relationship between change inertia and KM practice adoption, and to assess how the organisation's culture and the senior executives' skills and capabilities can enhance the role of KM practices

adoption in driving the organisation's performance.

1.1.4 Research Questions

The researcher has translated the research objectives enumerated in the previous section into the following research questions:

***RQ1.**How does change inertia impact KM practices adoption in the UAE public sector setting?*

***RQ2.**What role do organisational culture and the skills and capability of senior executives play in driving KM practices adoption and changing public sector inertia?*

1.2 Research Significance

As a concept, KM is relatively new in many organisations (Dewah & Mutula, 2016). Few of the currently available studies on KM and public sector organisations' efficiency have researched the linkages between these concepts. One example of such a study, carried out by Chaston (2012), indicates that, within UK public sector organisations, KM acts as a driver of performance and efficiency in the dynamic business environments. Another such study, carried out by Biygautane and Al-Yahya (2011), presents the factors that influence KM implementation within the context of UAE public sector organisations. The authors highlight that the current challenge facing UAE public sector is not only knowledge development, but also the need for proper KM practices adoption based on its common philosophical roots which are grounded in pragmatism. Thus, Biygautane and Al-Yahya (2011) call for further research on KM and its influence on public sector organisation's performance. Furthermore, public sector organisations face different challenges in driving KM effectiveness, especially due to factors like organisational change inertia (Taylor & Wright, 2004; Bate & Robert, 2002) that negatively impact KM practices adoption within organisations.

In this regard, it is hoped that this study will make a significant contribution towards the existing body of knowledge by investigating the challenges of KM practices adoption faced

by organisational change inertia within the ambit of the public sector organisations in the UAE. The research will also help public sector management to adopt strategies that will help overcome change inertia and enable their organisations to benefit from KM practices adoption.

Empirical studies into KM, such as those of Wong (2005) and Khalifa and Liu (2003), have largely focused on the successful implementation of KM within organisations. Other researchers have focused on the information technology (IT) role on KM (Huysman & Wulf, 2006; Albino et al., 2004). In contrast, many studies of organisational KM, such as those of Hedberg (1981), Argyris and Schön (1978), have been directed towards equipping managers with tools with which to build an environment that is conducive to creating innovation and creativity.

Therefore, this study distinguishes KM from IT solutions, thus providing opportunities for public sector organisations to reconsider their perception and stance towards KM. A few empirical studies in the field of organisational knowledge, such as that by Murray and Donegan (2003), have focused on the influence of certain dimensions of a knowledge-based organisation on organisational performance such as that by Jashapara (2003), or on validating drivers of knowledge-based organisations such as that by Yang et al. (2004). In short, the aforementioned empirical studies have discovered that organisational efficiency acts as a conduit to the creation of a knowledge-based organisation.

Unfortunately, the existing literature falls short in providing insights why many public sector organisations fail in KM practices adoption to drive organisational efficiency. In his study, Frost (2014) indicates several factors through analysing the reasons behind failed KM initiatives and projects across different organisations. To drive success in future KM initiatives, he recommends that organisations give attention to the following points:

Table 1 Root causes for knowledge management failure, source: Frost (2014)

Causal Failure Factors	Resultant Failure Factors
Lack of performance indicators and measurable benefits	Lack of widespread contribution
Inadequate management support	Lack of relevance, quality, and usability
Improper planning, design, coordination and evaluation	Overemphasis on formal learning, systematisation and determinant needs
Inadequate skill of knowledge managers and workers	Improper implementation of technology and improper budgeting and excessive costs
Problems with organisational culture	Lack of responsibility and ownership
Improper organisational structure	Loss of knowledge from staff defection and retirement

The current study makes a positive contribution to the current body of literature in KM and organisational efficiency debates by providing a qualitative empirical analysis of the relationship between two concepts, thereby bridging the gap between the two streams of literature on KM adoption practices and organisations change inertia in UAE public sector organisations.

The practical significance of the study lies in its promotion of understanding decision-makers in public sector organisations with respect to nurturing and harnessing organisational knowledge resources, which should enable them to identify the strategies of KM practices adoption that will maximise the benefits to be gained from KM in order to improve organisational efficiency and minimise change inertia's negative impact.

The core assumption of this study is that KM practices are taken to be an activity, which is deliberately adopted by public sector organisations to improve efficiency. In this sense, an organisation's KM practices are seen as activities which ultimately lead to an output (i.e. KM practices = improved efficiency). However, many organisations have failed to successfully implement KM best practices due to change inertia.

The efficiency and sustainability of public sector organisations, in the context of highly demanding customers for public services, is dependent on how the service provider manages knowledge in order to provide value-added services to its citizens.

The current study is also significant in the following ways:

First, the study is unique, as it is set in a developing country (the UAE), and will provide insights into how to minimise change inertia's negative impact on KM practices adoption within the context of the public sector.

Second, based on empirical analysis of primary data, the study is intended to contribute to bridging the gap in the theoretical literature. It will support public sector management by identifying strategies such as supportive organisational culture and senior executives' skills and capabilities that will overcome change inertia challenges and thereby drive organisation efficiency through KM.

Third, this research will contribute to the literature on KM in the public sector by identifying new research opportunities that can be pursued in future studies.

1.3 Research Methodology Brief

To guarantee a systematic research process, a research methodology is planned and detailed in Chapter Three in alignment to the above-mentioned objectives and research questions. This study will rely on two types of data: primary data that will be collected from the selected case study within the UAE public sector setting and secondary data that will be collected from the field literature and published documents by the UAE public sector organisation. A public sector Educational Administration Body of Abu Dhabi has been chosen as the case study for this research. Individual face-to-face interviews will be undertaken with all the research participants. These types of interview help the researcher understand and define the common patterns, similarities and differences in the selected organisations. This method of analysing the face to face interviews has been found to be reliable and used in various qualitative research projects (Gummesson, 2008; Miles & Huberman, 1994). The interviews were used through a pilot and actual studies which were established to evaluate the study

propositions and experience it as a data collection instrument (van Teijlingen & Hundley, 2001). Researchers Borg and Gall (1983) point to the pilot study as a source to supply researchers with new ideas, studies improvements, approaches and new enquires that the researcher was unaware of prior to the pilot study.

Developing pilot studies to test the data collecting instruments, support the researchers to identify the unexpected problems and any ambiguity of the instrument outputs (Burton & Merrill, 1991).

After the pilot study, the researcher used those new ideas, improvements, approach and new enquires to improve the interview questions and structure in order to ensure that she was able to obtain clearer results and findings from the actual study data collection.

After the research participants expressed their interests to voluntarily take part in the pilot study, they were invited to sign the consent forms prior to the interview and observations. They also had the opportunity to read the information sheet about this study. All the interviews were held in very convenient and quiet rooms based on the participants' preferences. All the eight interviews were, upon consent, recorded using a digital voice recorder and lasted between 30 and 60 minutes. After the data was collected, the interview was transcribed, analysed and reflected upon to identify themes emerging from the data. This pilot study is a very useful tool for researchers to reflect on and refine the interview questions and make them familiar with their sample study.

1.4 Structure of Thesis

The remainder of the proposal is structured as follows:

Chapter Two presents the review of the literature on major concepts used in this study. Theories and models that form the foundation of KM and organisational performance are identified, as well as their possible linkages. This chapter also gives a presentation of the prior literature on knowledge management, including the different definitions and

taxonomies of KM in business journals and academic research. The focus of the chapter will be to highlight the role of KM as a driver for efficiency in public sector organisations.

Chapter Three will present the research methodology used in the study. It describes the philosophical underpinnings of the research, indicates the study population on which the study is based and shows how the sample size for the study was attained. The chapter also highlights the techniques used in the data analysis.

Chapter Four explains the procedures for qualitative data analysis and results of qualitative analysis respectively. This chapter will deal with the qualitative data obtained from the study and explains how the key informant interviews will be conducted, and how the qualitative data will be analysed. Furthermore, it will present the results of the key informant interviews as well as present interpretation of the interview data.

Chapter Five presents a discussion of the obtained results in this study. In this chapter, results from the qualitative analyses are integrated together and discussed in relation to the research propositions made. The proposed KM practices adoption and change inertia reflection is also discussed. It presents a summary of the findings of the study and highlights the contribution made by the research to the field of knowledge management and public sector organisational performance.

Chapter Six concludes the research with a list of recommendations for researchers and practitioners, highlights the research limitations and advises as to possible future research in KM practices adoption.

2 RESEARCH STUDY BACKGROUND

2.1 The United Arab Emirates economy

During the last few years, economies have constantly oscillated between growth and recession, leaving the governments feeling the pressure of competition and being called upon to lower public administrations in order to lower costs, all the more so with growing competition from private sector organisations at both the international level and national level. At the international level, for instance, NGOs and governments face competition with multinational corporations delivering similar services. Moreover, at the national level where the decentralisation processes has allowed private sector organisations to directly compete with governments in sectors such as education, services, security, transportation and knowledge, these services had traditionally been offered by the public sector.. In sectors that have been decentralised, the government is not only in competition with the public sector, but also in a race to deal with economic crises, bureaucracy and high employment rates. Hence, a serious decision must be made to invest more in knowledge management and the knowledge economy; as citizens demand and receive more customisation from knowledge-oriented private sector organisations, they are also expecting the same level of services and value from their public sector organisations. Investing in the knowledge economy helps governments to diversify their economics returns from different sectors. The United Arab Emirates (UAE) has achieved great progress across economic sectors since the government's decision to invest in the knowledge economy. Thus, the government has established a ten-year national strategy called UAE 2021 Vision, which aims to minimise the country's dependency on the oil and gas sector national returns from 90% down to 20%. The following sections present national economic growth across the sectors, since the UAE government has adopted the UAE 2021 Vision with a view to developing a knowledge economy in the UAE.

This chapter presents some background information about research context of this study that aims to shed light on the current position of the knowledge management in the UAE public sector organisation.

The UAE is a very young country, celebrating the 45th anniversary of its foundation in 2016 under Sheikh Khalifa bin Zayed bin Sultan Al Nahyan. Thirty years ago, the UAE was one of the least developed countries in the world. Today, the UAE has achieved an income level comparable to that of the industrialised nations. The UAE was able to develop itself as a solid federation with many positive attributes in state building and overall development.

According to the World Competitiveness report (2016), the UAE benefitted from high levels of openness to trade and investment (5th on foreign competition), which ensure intense competition and high levels of innovation. Its business environment is welcoming to investment and characterised by regulations that are easy to comply with (3rd), a relatively efficient labour market (11th) and the presence of sophisticated businesses (15th). However, according to the World Competitiveness report (2016), the UAE needs to improve its capacity for innovation by focusing more on knowledge economy through all the government working sectors.

At the regional affairs level, the UAE has been lucky in terms of trade policy liberalisation, which is supported by an advanced and developed financial sector. The new trade focus has resulted in few macroeconomic changes: a premium laid on macroeconomic stability, a priority for stable social safety networks and the development of diverse capabilities.

The UAE's rulers had the vision to place particular importance on developing a strong knowledge economy in order to drive higher quality human capital development that will contribute to the labour market's needs. The ruler's vision was employed as a national level development strategy called the UAE Vision 2021. The vision aims to drive the UAE economic, industrial and social development and reform through the coming years. The

following section elaborates on how UAE structural sectors consider knowledge management as a driver of development and innovation in order to foster economic diversification.

2.2 UAE 2021 National Vision

From oil to knowledge, transforming the UAE into a knowledge-based economy towards UAE Vision 2021, the national strategic plan is to become “among the best countries in the world by the Golden Jubilee of the Union. In order to translate the Vision into reality, its pillars have been mapped into six national priorities which represent the key focus sectors of government action in the coming years" (UAE vision 2021²) The following section presents the progress made by the UAE in the various national working sectors.

2.2.1 Economic and Institutional Constraints

The UAE, the world’s eighth largest oil producer, maintains a free-market economy and is also one of the most politically stable and secure in the region. This ensures that the country has a robust competitive edge as the region's premier commercial hub and second largest economy.

Economic growth in the UAE is steady despite a short-lived hiatus as the global economy faltered in 2008 with the credit crunch and the onset of a global recession. Recovery was aided by high oil prices during the past few years, increased government spending and a revival of the focus on non-oil industries such as education, health, services, industry and trade.

In addition, the successful restructuring of debt owed by high-profile companies, solidarity among the emirates and accommodative monetary and fiscal policies all played a role in bringing significant economic stability to the market. For instance the International Monetary Fund (IMF) has reported that the UAE's real GDP will jump from 1.3% this year to 3.4% next year, while real non-oil GDP will see a significant growth of 3.3% and 3.4% in 2017 and 2018, respectively.

² (<https://vision2021.ae>).

Moreover, the UAE has, for the first time, been ranked among the world's top ten most competitive economies, jumping five places to the 10th slot. The latest World Economic Forum Global Competitiveness Report 2016-2017 also ranked the UAE as the top country in the Arab world for competitiveness. It climbed one spot from last year in the global rankings to 16th position. The IMF predicts that GDP will “strengthen gradually in the coming years with firming oil prices and other global indicators, and an easing pace of fiscal consolidation. Non-oil growth is projected to rise to 3.3% in 2017 from 2.7% in 2016, reflecting increased domestic public investment and a pickup in global trade” (IMF, 2017). This economic stability has helped the UAE to fund many projects and initiatives to drive stronger economic diversification based on the knowledge economy.

2.2.2 Economic Diversification

UAE Vision 2021 is a determined and far-reaching policy of economic diversification that has ensured that non-oil sectors now account for 69% of GDP, with oil supplying the remaining third.

In this regard, the UAE Vision 2021 strategy is to increase investment in industrial and other export-oriented sectors, including heavy industry, transport, petrochemicals, tourism, information technology, telecommunications, renewable energy, aviation and space, and oil and gas services. Much has already been achieved in these fields, especially in satellite and telecommunications, the aviation sector and in renewable energy; although short-term priorities have been altered to accommodate changing realities, the long-term strategy remains the same.

At the federal level, the UAE is pursuing Vision 2021 which aims to place innovation, research, science and technology at the centre of a knowledge-based, highly productive and competitive economy by the time of the federation’s Golden Jubilee in 2021. It is significant that the jubilee year happens to be the target date for the launch of the first Arab-Islamic probe to Mars by the newly established Emirates Space Agency.

2.2.2.1 Political and Social Stability

The existing political structures appear to suit the tribal society of the UAE, while the distribution of huge oil revenues in the form of social and economic infrastructure, high salaries, a high standard of social services such as health and education have raised the standard of living for UAE citizens and considerably reduced the likelihood of internal political and social unrest.

The UAE government believes that openness, dialogue and willingness to listen between different nations promote friendship, which in turn supports an environment of peace and understanding at the global level. On the other hand, isolation and withdrawal promote conflict, disagreement and negative stereotypes between different communities.

As a result, the UAE Vision 2021 strives to build positive communications and openness towards all countries and people across the world, translating this approach into actions and policies at national and international levels.

The UAE currently entertains proactive diplomatic relations with more than 182 countries. It is a large-scale contributor to humanitarian aid, with preliminary estimates putting the country's total foreign aid donations in 2011 at over AED 7.74 billion (US\$2.11 billion). Indeed, the volume of the country's foreign aid in 2011 reached 0.62% of its GDP. In addition, relations with many countries of the world, particularly Western countries, have been traditionally warm. Political and social stability have gone hand in hand with liberal trade policies and have paved the way for investment –

both domestic and international – in the industrial sector.

The infrastructure, social and legislative structure, and incentives offered by UAE to investors constitute the favourable climate for attracting direct foreign investment. It also encourages technology transfer and advanced management methods and techniques, and opportunities for transferring expertise to the national workforce.

2.2.2.2 Oil and Mineral Resources

As mentioned above, the UAE economy is highly dependent on exports of oil and natural gas (40% of total exports). In 2014, the UAE was the fourth largest producer in OPEC. The UAE has made intensive efforts to increase development in various economic sectors to promote economic diversity and stability, but the hydrocarbon sector remains a cornerstone of the UAE's economy with 40% of GDP contribution, in addition to the availability of the educated population and skilled labour force. With improved infrastructure, attractive tax systems and legal structures and more favourable trade agreements, the UAE is looking at a bright future. It is seen through the increase of the government spending in 2013 on major developing projects in oil and gas marine fields, with huge primary contracts to increase production in upper Zakum field, Satah Al Zarbot field, and Umm Lulu oil field, and more contracting opportunity to come in Nasr oil field in 2016.

The UAE will continue to invest heavily in oil and gas output capacity to meet the growing global demand for energy products regardless of the current slump in world oil prices. UAE has ambitious growth targets for 2020 and the country's crude output hit a record high last year, with more than US\$70 billion to raise the production capacity to 3.5 million barrels per day by 2018.

2.2.2.3 Population and Labour Force

The UAE is also expected to witness steady population growth over the next few years as it aims to become a regional hub in the Middle East. According to the World Urbanisation Prospects report released by the UN in 2013, the UAE's urban population is expected to amount to 7.9 million by 2020, growing at an average annual rate of 2.3% between 2010 and 2020. City dwellers in the UAE are forecast to account for 86.7% of the country's population by 2020, up 84% from 2010, the report said. Thus, a small indigenous population, a large expatriate population, and immense wealth generated by oil are the dominant socio-economic

features of the UAE. In addition to population size and age composition, social factors in the UAE have a great impact in determining the size of the UAE labour force.

2.2.3 UAE's Economy Sector Reform

Economic development can be perceived as a change in the structure of the economy. Structural change refers to terms such as agricultural transformation, industrialisation, demographic transition, urbanisation, the transformation of domestic demand and production, foreign trade, finance and employment. The UAE economy is witnessing exceptional growth according to the consistent policy of the government, and the new adopted strategies that are focusing creating diversified sources of incomes away from the traditional oil and gas sector. During the past ten years, the UAE has invested heavily in creating, developing and sustaining a reliable knowledge economy, coupled with building a highly-developed infrastructure. This allows the public sector growth and investments of the UAE human capital development, despite the challenges posed by the slowdown in the global economy, due to the unprecedented decline in world oil prices and the turbulence within the Middle East region. This has been seen through the approved a federal budget of \$70 billion AED 248 billion for the years 2017-2021. More than 50% of the allocated federal budget targets the public sector and enhances the UAE citizens' experiences and the provision of services across the seven emirates. In order to diversify the economy and reduce the dependence on oil revenues, the UAE has been making huge investments in the knowledge economy and different sectors such as tourism, financial and construction sectors. In this regard, UAE 2030 economic policy calls for an industry clustering strategy based on sectors in which Abu Dhabi has a natural competitive advantage, an existing base or a critical mass of assets. As a result, sectors such as real estate and tourism, aviation, logistics, energy and media – among others – have begun to flourish. A healthy financial services sector is not only identified as one of the nine pillars in the UAE Economic Vision 2021 but, as illustrated in major cities globally, it is an integral component to developing and sustaining a diversified economy.

Moreover, the UAE is considered the first Arab state to have set a five years budget which will focus on developing and executing plans toward a sustainable knowledge based economy, by developing new social services, block-chain government infrastructure, smart government services, and improving the level of the public services satisfactions and happiness among UAE citizens. Abu Dhabi is the UAE capital where all the country policies and laws are developed and mandated in coordination with seven emirates rulers, The UAE consists of seven emirates as follows:

Abu Dhabi

The largest state of the UAE, occupying 84% of the national landmass territory with 200 islands and a long coastline stretching 700km. Its total area is 67,340 sq. km with a total population estimated at 2,918,936 habitants as per 2016, whereas 11% are UAE nationals and 89% were expatriates. Abu Dhabi's economy is reliant on hydrocarbons industries reaching a total GDP of \$233 billion; however, in recent years, the Abu Dhabi local government has been working hard to reduce its hydrocarbons reliance and broaden the emirate's economy through investment in various sectors' infrastructure –

tourism, transport, health and education – in line with the UAE Vision 2021 and the Abu Dhabi government's 2030 economic plan.

Dubai

The second largest emirate with an area of 4,114 sq. km. which is about 5% of the UAE without the islands. The older districts of Dubai cover an area of 1500 square metres and, together with Abu Dhabi, Dubai represents around 90% of the UAE landmass territory. Dubai's population size is approximately 3,004,589 individuals as of 2016. Dubai has been successful in developing and maintaining a diversified economy that is no longer reliant on oil, by focusing on services, trade and finance sectors. In 2016, it reached a total GDP of approximately \$106 billion .

Sharjah

The third largest emirate of the UAE with a total area of 2,590 sq. km, representing 3.3% of the total landmass of the UAE (not including the islands). It is known for its picturesque landscapes and seascapes. The emirate has many educational institutions, which ensure a continuous supply of fresh talent armed with the latest knowledge in engineering, science and technology and other skills that support economic growth. The total population of Sharjah were 1,278,550 as of 2016. The Sharjah economy is based on the development of more than 45,000 small- and medium-sized enterprises (SMEs) in manufacturing, real estate, gas, tourism, education, healthcare, logistics and business services sectors. The manufacturing sector is considered an important source for Sharjah's overall economy and contributes to approximately 19% of its annual GDP that was estimated in 2016 around \$ 40.75 billion.

Ras Al Khaimah

The Ras Al Khaimah economy covers a total area of 1684 sq. km. which represents around 3.16% of UAE, with a total population of 334,000 as per 2016 according to Federal Competitiveness and Statistics Authority. It is focused on cement industry, pharmaceutical manufacturing and other manufacturing industries, amounting to a total GDP contribution to the UAE of \$8.5 billion.

Ajman

The smallest emirates of UAE, with a total territory of 259 sq. km, which is about 0.3% of UAE's landmass. The total estimated population is 504,847 as of 2016 according to the Federal Competitiveness and Statistics Authority, and the total estimated GDP was \$4.25 billion in 2016. Ajman's economy counts on various economic sectors as construction, real estate and business services and financial corporation sectors.

Umm Al Quwain

Considered the second smallest and the least populated emirate in the UAE, representing 1% with approximately 720 sq. km of territory and a total population of 72,936. Fishing is a key

contributor to the local economy. The emirate exports seafood throughout Europe and Middle East. In 2016, the emirate GDP contribution to the UAE was estimated at \$2.2 billion.

Fujairah

The only emirate located completely on the eastern coast of the UAE along the Gulf of Oman, with a total area of 1,450 sq. km and a total population of 270,390. As of 2016, Fujairah's economy is based on fishing and agriculture, and it's the UAE's only access to the Indian Ocean. It operates a multipurpose port that offers access to major shipping routes of the world, making it home to the world's largest livestock shipping companies. The emirate's GDP achieved \$4.3 billion in 2016. In 2015, Fujairah launched the 'Fujairah Plan 2040'. The plan includes the development of Fujairah ports by adding new terminals for oil, marine services, dry bulk and containers.

Finally, in 2016 the UAE government injected a total amount of \$82 billion to foster the UAE's knowledge economy driven by innovation in various economic sectors, in line with UAE Vision 2021 to diversify the non-oil contribution to GDP so as to reach 80% by 2021 and reduce the oil and gas contribution to the country total GDP to less than 20%. The current oil and gas contribution is around 37.3% of UAE total GDP as of 2016, while it was 49.2% of Abu Dhabi's total GDP. The total proven oil reserves is 97.8 billion barrels, in which Abu Dhabi holds 92.2 billion barrels, followed by Dubai with 4 billion barrels, Sharjah with 1.5 billion barrels and Ras al Khaimah with 500 million barrels.

The following table shows the the total UAE 2016 GDP contributions by different sectors of both UAE and Abu Dhabi

Table 2 2016 GDP contribution by different sectors of both UAE and Abu Dhabi

ECONOMIC SECTOR	UAE GDP BY SECTOR	ABU DHABI GDP BY SECTOR
Extraction of crude oil and natural gas	37.3%	49.20%
Wholesale and retail trade	10.3%	10 %

Repair services	10.3%	10 %
Real estate	10.3%	9.6%
Businesses	10.3%	12.4%
Construction	9.0%	9%
Manufacturing	8.0%	15%

Moreover, Abu Dhabi's contribution to the total GDP of the UAE is estimated at around 60%, due to the high reserves of oil and gas. Abu Dhabi accommodates around 35% of the UAE total population, in addition to the the political and economic position of Abu Dhabi as the capital of the UAE. Therefore, the Abu Dhabi public sector is under great pressure to be more efficient and responsive to the surrounding market, especially with the current market prices of oil and gas that contributes more than 49% of the Abu Dhabi GDP.

Table 3 2016 GDP contribution by UAE Emirates

EMIRATES	POPULATION	POPULATION %	GDP/\$BILLION	PERCENTAGE OF GDP
Abu Dhabi	2,918,936	35%	233	58%
Dubai	3,004,589	36%	106	27%
Sharjah	1,278,550	15%	40.75	10%
Ajman	504,847	6%	4.25	1%
Ras Al Khaimah	334,000	4%	8.5	2%
Fujairah	270,390	3%	4.3	1%
Um Al Quwain	72,936	1%	2.2	1%
Total	8,384,248	100%	399	1

Another factor to take into consideration for the importance of building and creating knowledge-based organisations inside the public sector and adopt the KM practices is that more than 72% of Abu Dhabi residents and employees are expatriates, who are working in both the public and private sector. These people will leave at some point in time, taking with them their knowledge, know-how and the work experience that they have obtained through many years working in the UAE. The proportion of expatriates in the UAE was estimated at more than 85% of the total country's population as of 2016.

2.2.3.1 Services Sector

The service sector, which includes trade, restaurants, hotels, transport, storage, communications, finance, insurance, real estate, business services, community, and social and personal services, ranks first in size of employment (58% of the labour force), which reflects its powerful dominance in the UAE. Expo Dubai 2020 will, among other things, lead to an increase in the number of building developments undertaken in the country in order to create the appropriate infrastructure, as well as create jobs in the tourism sector.

For instance, the travel and tourism industry has been earmarked as a key growth sector for the UAE as part of its ambitious economic diversification policy. In 2015, the sector's total contribution to the country's GDP was 8.7% or AED133.8 billion (US\$36.43 billion), growing by 4.4% in 2016 and then 5.4% per annum to hit a predicted AED236.8 billion (\$64.47 billion) or 11.2% of GDP by 2026. According to reports, more than AED27.4 billion (\$7.46 billion) was pumped into the UAE's travel and tourism sector in 2015, a significant 7.3% of total investment. This was anticipated to jump 2.8% in 2016, and by 6.8% every year over the next ten years to reach AED54.4 billion (\$14.81 billion) in 2026, or 8.2% of total investment. The UAE is determined to become one of the world's leading tourism destinations and WTTC's report reveals that, in 2015, it was ranked 28th out of 184 countries in terms of the relative importance of travel and tourism's total contribution to GDP. In terms of the sector's size and GDP contribution, it ranked 105th, but its 2016 growth forecast ranked the country 42nd out of 184 (<http://wttc.org>, 2016)

2.2.3.2 Industrial Sector

The UAE considers the industrial sector positively, especially in light of the success achieved by the country in previous years in terms of proudly building an industry which involves vital industries such as petrochemicals, aluminium, iron, steel, aircraft components, building materials and others to promote sustainable development and serve its objectives (Transparency Market Research, YEAR?).

2.2.3.3 Health Sector

The UAE Vision 2021 states that “the UAE [will] ... invest continually to build world-class healthcare infrastructure, expertise and services in order to fulfil citizens’ growing needs and expectations”. Furthermore, the Emirate of Abu Dhabi explains in their Vision 2030 plan that “the growth of the medical sector is dependent on large investments in technology, which Abu Dhabi is in a position to make ... Abu Dhabi will have to attract qualified doctors and medical scientists as well as train local medical staff in order to develop this sector sufficiently”. Dubai’s 2021 plan similarly focuses on international U.S. healthcare providers to “improve health system planning to ensure service availability, accessibility and quality”.

What sets the UAE apart from other countries in the Gulf is that the federal and individual-emirate governments are backing this vision with significant and strategic investments intended to drive the industry forward. In 2013 alone, UAE healthcare expenditures reached an estimated \$16.8bn. There are currently 104 hospitals throughout the seven emirates and the World Health Organisation reports that there are currently 19.3 physicians and 40.9 nurses and midwives per 10,000 persons (UAE Healthcare Sector Report, 2014, <http://usuaebusiness.org/>).

2.2.3.4 Education Sector

Great nations and societies are built on great education. Taking a cue from this, the UAE is prioritising the education sector and seeking huge investments towards developing state-of-the-art schools, higher education institutes, universities and vocational training centres. To demonstrate its commitment towards education, the UAE has allocated a fund of AED 9.8 billion (USD 2.67 billion) for school and higher education in the 2016 budget (Gulf Education & Training Exhibition, 2014, www.mygetex.com).

As a part of the intended objective, the UAE strategy is to seek huge investments towards developing universities, institutions and research centres. One of the initial initiatives in this regard has been the Dubai Knowledge Village (DKV), established in 2003 as a free zone for

foreign universities and institutions. However, due to space limitation in DKV and increasing growth in the education sector, the Dubai International Academic City (DIAC) was established in 2007 to facilitate more local and international universities with state-of-the-art modern facilities (<http://www.diacedu.ae/>).

The UAE's higher education landscape can be broadly classified into four types of education institutes: local, federal, foreign and vocational, which offer a range of courses such as technology, law, business, humanities, media and design. The present socio-economic dimension in UAE, especially in Dubai and Abu Dhabi, offers numerous opportunities for the education sector to expand and flourish. The World Exposition 2020 is expected to generate 277,000 direct jobs. Such events with huge demand potential call upon universities to extend their academic and training portfolios to train and equip students in order to fill the gap (<https://www.expo2020dubai.com/>).

Abu Dhabi Economic Vision 2030 is aimed at structured diversification of the emirate's economy into a range of key sectors, with education being one of them. The plan seeks massive investment for the education sector to develop world-class universities, training institutions, research and innovation centres. The latest figures from the UNESCO Institute for Statistics show that the UAE sends about 8,500 students abroad for tertiary-level study; it hosts over 54,000 in return, primarily from countries in Asia and the Gulf region (UNESCO Institute for Statistics, www.uis.unesco.org/).

2.3 UAE 2021 Vision KM practical cases

UAE continues to lead the way in promoting the knowledge economy, due to its belief in the importance of these elements in making the positive change that supports the social progress and development. The government has clearly realised that economic growth in the current era will only be achieved with the adoption of the concept of the knowledge economy, which contributes to providing innovative and distinct products and services. This is why the UAE allocated a special place to this concept in "UAE Vision 2021" titled "United in knowledge".

In addition, the UAE assigned certain indicators (see table 2) ensuring the commitment to its application, for example, achieving high ranking and places in Global Innovation Index (GII) and increasing the percentage of “knowledge field employees” out of the total number of the employees in the state. In addition, UAE public sector organisations have adopted various KM initiatives in line with UAE Vision 2021, for example, the judiciary, transportation, police and education. The following section presents some practical cases from UAE Public sector organisations.

Table 4 United in knowledge theme KPIs index of UAE 2021 Vision

INDEX	INDICATOR	DEFINITION	KEY SPONSOR
1	Global Innovation Index	A composite index that measures the performance of innovation in countries.	Ministry of Economy
2	Non-Oil Real GDP Growth	An indicator that measures the real annual economic growth of all sectors except oil.	Ministry of Economy
3	Gross National Income (GNI) per Capita	An indicator that measures the average income per person in a country.	Ministry of Economy
4	Net Inflow of Foreign Direct Investment as % of GDP	An indicator that measures foreign direct investment (FDI) as a percentage of GDP.	Ministry of Economy
5	Global Competitiveness Index	A composite indicator that measures the competitiveness of countries based on (12) perspectives.	Federal Competitiveness and Statistics Authority
6	Share of UAE Nationals in the Workforce	An indicator that measures the share of employed UAE nationals out of the total workforce (expatriates and nationals), across all sectors (NKPI specific to UAE)	Ministry of Human Resources and Emiratisation
7	Ease of Doing Business Index	A composite indicator that measures government procedures around business activity.	Federal Competitiveness and Statistics Authority
8	Emiratisation Rate in the Private Sector	An indicator that measures the share of UAE nationals employed in the private sector, as a proportion of the total workers in the private sector (expatriates and nationals) (NKPI specific to UAE)	Ministry of Human Resources and Emiratisation
9	SME Contribution to	An indicator that measures the share	Ministry of

INDEX	INDICATOR	DEFINITION	KEY SPONSOR
	Non-Oil GDP	of GDP produced by small and medium-sized enterprises	Economy
10	Global Entrepreneurship and Development Index	An indicator that measures three sub-indices: Entrepreneurial Attitudes, Entrepreneurial Activity and Entrepreneurship Aspiration	Ministry of Economy
11	Share of “Knowledge Workers” in the Labour Force	An indicator that measures the share of highly skilled workers, workers in high-level professions, and workers classified under the International Standard Classification of Occupations (ISCO - 08) of the total workforce.	MHRE
12	Research and Development Expenditure as % of GDP	An indicator that measures the total domestic expenditure on research and development (in the public, academic, and private sector), as a percentage of GDP	Ministry of Education

2.3.1 Ministry of Cabinet Affairs and Future

The Ministry of Cabinet Affairs and Future developed and launched a platform in line with the UAE Vision 2021 objectives which seeks to achieve the full smart transformation of all entities and facilities in UAE, as well as to build a knowledge-based economy. The platform gives a chance for training, discussion and interaction on issues related to the government’s work in UAE, including different features and sections such as “Government Expertise”, “Your Guide to Professionalism” and “Ask an Expert”. The feature of “Government Expertise” provides a variety of strategic studies prepared by the federal entities in collaboration with leading consulting firms, which have been broken down and classified by sector.

The feature of “Your Guide to Professionalism” presents guidelines and a set of practical applied and training tools, as well as a series of summaries of the most important books related to decision-making, leadership and policy formulation. As for the feature of “Ask an Expert”, it gives the opportunity to interact with a group of experts from major consulting firms with various specialities, as they provide their expertise for the members immediately and without any costs.

The platform provides “search” service known as “E-Consultant”, which helps members browse the website and find the required information quickly and easily, or use the tools that assist in policy formulation, either by a general or specialised search based on sector. The contents of the platform are only available to decision-makers and stakeholders in the field of government policies of the federal government employees (UAE Ministry of Cabinet Affairs and the Future, 2010). Federal Authority for Government Human Resources

The “Ma'arif Initiative”, which translate as ‘knowledge’ in English, was unveiled and launched by the Federal authority for government human resources due to its belief that training leads to the transfer of technical and scientific knowledge in a way of allowing the employee and the entity to address the challenges posed by the acceleration of knowledge within the work environment. This initiative represents one of foreign sources of knowledge, based on the effective partnership between the federal entities and the private sector in the UAE, through which a list of top training services providers in the state will be prepared, aiming at the development and empowerment of human capital in the federal government (<http://www.fahr.gov.ae>).

2.3.2 Roads and Transport Authority

The Roads and Transport Authority (RTA) in Dubai is developing integrated and sustainable systems of roads and transport. Due to its enthusiasm for knowledge transfer and exchange, the RTA launched the “Ask an Expert” initiative, where a group of internal experts will answer questions posed by employees in order to help them perform their job duties. As part of the knowledge management initiative, experience and capabilities of all the employees have been classified. The recipient can evaluate to what extent he/she benefited from the responses and answers, as the highly rated answers will be automatically archived so that they can form a reference for anyone who needs information in the future.

2.3.3 Juridical System

Dubai Courts regulate the courts in the Emirate of Dubai, in terms of financial and administrative aspects, including and covering courts of the first instance, courts of appeal

and courts of cassation. Dubai Courts are considered as leading entities in the field of knowledge management since they use “E-Judge System”. This system contains a network of electronic applications and tools, which include the procedures and mechanisms used by Dubai Courts judges to do their work, including electronic communication and correspondence system, e-knowledge system, electronic office of the judge, electronic archiving system, electronic pleadings system, electronic system for case management and so on. In order to maximise the usefulness of the system and ensure that it is up-to-date, the judge is required, after issuing the judgement in a case, to enter the details of the case and how the judgement is issued in the system. Thus, the “E-Judge System” forms a resource and a reservoir of knowledge that can be referred to on a regular basis, as it helps judges to carry out their duties, as well as facilitate their access to the information needed, for example, the previous cases considered and decided upon by current and former judges. It should be noted that, in 2011, it was clarified that the use of the system reduced the time spent for the completion of 86% of cases with a period up to three months, while the remaining part (14%) is being completed in just six months.

2.4 The Abu Dhabi Context

As mentioned, Abu Dhabi is the largest emirates of the UAE, with the largest GDP contribution. Abu Dhabi is working hard to transform its economy, moving away from the reliance on hydrocarbons industries toward a diversified economy that is based on sectors like infrastructure, tourism, transport, health and education in line with the UAE Vision 2020 and Abu Dhabi government's 2030 economic plan. Therefore, the government has committed with an on-going evaluation of its legislation, legal systems and public sector processes to ensure that Abu Dhabi is an attractive investment destination for the investors. Since then, Abu Dhabi has focused on developing agile public sector organisations that are based on knowledge-based and digital economies.

And yet, the revolutionary pace in this development journey is dependent on the preparedness of the public sector organisation's social and political environments, such as resistance to change, change inertia and KM practices. KM practices adoption is very important to driving change and improving performance in different sectors, because KM adoption improves an individual's approach towards addressing different challenges and opportunities inside the organisations (Ramachandran et al., 2009). Newly gained KM practices enable performance improvement, productivity gains and positive transformation across organisations (Paulin & Suneson, 2015; Argote et al., 2000).

However, the oil and gas sector's contribution is estimated at around 50% of Abu Dhabi's GDP and 40% of the UAE's GDP. Thus, the recent fall in oil prices globally has impacted Abu Dhabi public sectors spending and reduced budget allocation across all the sectors.. This, combined with organisational talent departure from many sectors, has put pressure on public sector spending. Despite the push for better employment opportunities for Emirati people (Biygautane, and Al-Yahya. 2011), public sector organisations are seeing a shrink in their spending on human resource development.

The organisations lose competencies when their individuals moves to other organisations or even to other departments, which happens due to the lack of a well-structured KMS inside the public sector organisations or even due to the lack of KM practices adoptions in those organisations. Hence, adopting KM practices within public sector organisations can create benefits and opportunities at both the individual and organisational level. This means that the individuals will get an opportunity to expand their knowledge, enhance their experience and improve their skills that will be reflected in their operational tasks and duties. At the organisational levels, this will be noticeable through the improved quality, efficiency and improved decision making processes that affect the productivity and the satisfaction of the public (Cong et al., 2004), which makes KM the main element to improve organisations' excellence and survive in today knowledge economy.

2.5 The Study Sample

In this study, the researcher focused on the UAE education sector due to her long working experience and familiarity within this sector. The researcher noticed the problems facing the UAE education sector working organisation's in driving successful KM initiatives. The researcher believes that many of the UAE education sector organisations have failed to drive the efficient KM initiatives, due to barriers related to the organisational change inertia, senior executives' skills and commitments toward KM and, most importantly, organisational culture. Hence, the researcher decided to carry out this study at public sector organisations in the UAE education sector; for reasons of maintaining confidentiality and anonymity, the organisation is not mentioned in this study.

The selected organisation was established with a clear vision and mission, which drives its current and future activities; its vision is to be “recognised as a world-class education system that supports all learners in reaching their full potential to compete in the global market” (organisation website, 2013³).

Moreover, the organisation focuses on improving the quality of education in Abu Dhabi to match high international standards. The organisation’s director stresses that this work should reflect 21st century trends in pedagogy, curriculum, teaching and learning, as well as develop teachers’ professional skills. He states, “we don’t just want to improve our education system, our schools and the performance of our students; we want to be ranked as one of the best education systems in the world”. In addition, it also focuses on the acquisition of learning and knowledge through socialisation and assimilation of national culture, attitudes, values, local opinions and learning from other nations’ experiences, particularly Western countries (ibid).

2.5.1 *The organisation's services*

The organisation's team consist of 700 employees, of which five are executive directors, 34 are senior executive managers of divisions, and 65 are managers of sections. A total of 596 employees work in these directorates and divisions.

³ Due to confidentiality agreement, the organisations name or website cannot be mentioned.

The organisation is solely responsible for developing primary and high school education in Abu Dhabi; their services therefore focus on helping schools and teachers. In general, it provides two types of service, one for the general public and the second for businesses. It is also responsible for developing and monitoring curriculum, developing and upgrading teachers' skills and implementing contemporary teaching methods. Additionally, the organisation provides services for public schools, in terms of issuing and attesting educational certificates, and helps investors and organisations to establish educational institutions in Abu Dhabi.

2.5.2 Why this organisation

The selected organisation has set an ambitious ten-year strategic plan (2009-2018) that targets both public and private schools and aims to perform above the international standard. It also aims to increase students' knowledge of their culture and history, and improve their access to high-quality schools. The organisation began with what is called the New School Model (NSM), which targeted Grades 1-3 and was expanded to other grades in 2012. The key aspect of this plan was to focus on students' learning rather than teaching, not only through schools but also through 94 family involvement in the education process, teachers and the community. The plan took into consideration the development of a standardised curriculum and pedagogy and allocated sufficient resources to support all schools in the Abu Dhabi region. The new initiative also focused on developing students' critical thinking skills, language skills, both Arabic and English, and knowledge of cultural and national identity. Thus, the research is based on a case organisation in the education sector in Abu Dhabi, (in the setting of the public sector. The research will investigate the role of KM practices adoption in driving organisational efficiency.

2.6 Summary

This chapter highlighted the research context of this study, providing brief background information concerning the country's political and economic environment and the country's

vision of change in order to reform and develop a knowledge-based economy. This study examines the challenges faced by major working regularity organisations working in the UAE public education sector in successfully managing KM and changing organisational inertia, as well as the role of the senior management and culture in reducing inertia and driving efficient KM practice adoption inside UAE public sector organisations.

The following chapter elaborates the relevant literature in regards to KM, change inertia, organisation culture, and senior management capabilities.

3 LITERATURE REVIEW

The purpose of this study is to investigate how organisational change inertia impacts KM practices adoption in UAE public sector organisations, and to determine if senior executives' skills and capabilities moderate the relationship between change inertia and KM practices adoption. A literature review of these concepts is presented. Specifically, this chapter provides: (a) the definitions and theory of knowledge management, (b) the KM practices in public sector organisations, (c) a review of the literature on KM challenges in public sector organisations, (d) a review of literature on organisational change, (e) an analysis of research on the relationship between knowledge management practices and performance, and (f) an analysis of the research into the impact of inertia on knowledge management practices.

3.1 Introduction

In this chapter, the researcher presents the evolution of knowledge management and its rapidly growing role in public sector management, combining this with an up-to-date literature review. Firstly, it aims to clarify the meaning of KM practices as used in this study, and to provide an understanding of KM background and how it influences the organisations in today's knowledge economy. Secondly, the researcher will elaborate on public sector performance, another theme that is in the core for this study. Thirdly, the researcher will conclude this chapter by explaining the relation between KM and public sector organisations performance.

In this chapter, the researcher will look at what the literature in the field of KM has discovered up until now, which includes definitions of knowledge and its role in driving enhanced performance to the public sector organisations. Moreover, to ensure a full understanding of the role of KM in public sector organisations, the researcher will look into other organisational practices that enhance KM's role, since the application of knowledge in daily organisational practices and strategies plays a key role in driving organisations' competitive advantage in the markets.

3.2 What is Knowledge Management

In today's world, globalisation opens up a door of opportunities to many organisations to provide products and services to markets afield. These opportunities have also increased the level of competition. Therefore, those organisations have realised the need to have a sustainable competitive advantage through utilising their knowledge resources in an effective way that allows enhancing their competitive advantage over other market competitors (Huang et al., 2011). However, to manage organisational knowledge, it is important to understand the concept of knowledge itself.

The term of KM has grown over the decades from the time of Aristotle, where knowing and the motivation for knowing was the purpose of the elite, but the modern management science referred to knowledge as "justified true belief", which goes back to Michael Polanyi's original work "we know more than we can express" (1985, p. 14)

Therefore, before examining knowledge management, it important to understand what is knowledge. For instance, Hislop defines KM as "an umbrella term which refers to any deliberate efforts to manage the knowledge of an organisation's workforce, which can be achieved via a wide range of methods including directly, through the use of particular types of ICT, or more indirectly through the management of social processes, the structuring of organisation in particular ways or via the use of particular culture and people management practices" (2013, p. 56).

While other have referred to knowledge as a state of mind where knowing and understanding is gained through experience or learning (Argote et al., 2003; Alavi & Leidner 2001; Argote, 1999). Thus, knowledge is a result of processing information that is effective in actions and focused on results (Drucker, 1993). Knowledge is a corner stone inside organisations, enhancing its intelligence, supporting decision-making, forecasting, shaping designing, planning, diagnosing, analysing, evaluating and having an effective intuitive judgement (Tiwana, 2000).

Importance of knowledge as a key resource comes from the privileges that organisations gain by creating new competitive values to be unique and not easily imitated or copied, which drives strategic equivalents (Barney, 1991) or at least limits the replication of the organisation competitor (Grant, 1997). Knowledge has been indicated as one of the main resources that creates what is called resource-based organisations theory. According to this theory, knowledge can be used by organisations to develop capabilities that create a competitive advantage and are difficult to imitate (Barney, 1991).

This complements Teece (2000) who highlights the importance of internal intangible resources that allow the organisation success by building, utilising and protecting knowledge that is difficult to imitate by other market competitors. Thus, knowledge is seen to be a production mechanism that brings in innovation in one kind of output and performance and skill enhancement in another.

Knowledge is a combination of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information by sharing and using this knowledge (Davenport & Prusak, 1998; Nonaka & Takeuchi, 1995).

Hence, knowledge value is increased when practised through acquisition, sharing and utilisation to drive value and efficiency for organisations. What is concluded here is that KM practices are intended to make knowledge the main source for organisations to obtain efficiency through enhancing its ability to create hard to imitate competencies that deliver value to customers (Dimitriades, 2005). Generally, KM refers to the actions of generation, codification and transfer of organisations' knowledge, which also aims to improve organisations' performance and support decision-making (Hlupic et al., 2002; Gold et al., 2001). This entails that KM should support organisations in achieving its objectives by creating, applying and utilising knowledge (Riege & Lindsay, 2006). Hibbard provides an extensive definition of KM as "the process of capturing a company's collective expertise

wherever it resides – in databases, on paper or in people’s heads – and distributing it to wherever it can help produce the biggest payoff” (1997, p.46). The following table provides a classification of KM definitions, arising from differently focused studies over the past few years.

Table 5 Classification of KM definitions

SN	Reference	Definitions of KM
Focus: need of KM		
1	CPA Journal, 1998	Knowledge management is concerned with organising and analysing information in a company's computer databases so that this knowledge can be readily shared throughout a company, instead of languishing in the department where it was created, inaccessible to other employees.
2	Bair, 1997	Knowledge management aims to capture the knowledge that employees really need in a central repository and filter out the surplus. Use of technology to capture the knowledge residing in the minds of the employees so it can be easily shared across the enterprise.
3	O'Leary, 1998	Enterprise knowledge management entails formally managing knowledge resources in order to facilitate access and reuse of knowledge, typically by using advanced information technology. KM is formal in that knowledge is classified and categorised according to a pre-specified but evolving ontology into structured and semi-structured data and knowledge bases.
Focus: what KM demands		
4	Thomas et al., 2001	Knowledge management is seen primarily as a domain of capturing, organising and retrieving information, evoking notions of databases, documents, query languages and data mining.
5	Hannabuss, 1989	Finding out how and why information users think, what they know about the things they know, the knowledge and attitudes they possess, and the decisions they make when interacting with others.
6	Hibbard, 1997	Combining indexing, searching and push technology to help companies organize data stored in multiple sources and deliver only relevant information to users.
7	Anthes, 1991	Policies, procedures and technologies employed for operating a continuously updated linked pair of networked databases.
8	Gopal & Gagnon, 1995	Identification of categories of knowledge needed to support the overall business strategy, assessment of current state of the firm's knowledge and transformation of the current knowledge-base into a new and more powerful knowledge base by filling knowledge gaps.
9	Chorafas, 1987	Ensuring a complete development and implementation environment designed for use in a specific function requiring expert systems support.
Focus: KM practices		
10	Mack et al., 2001	Capturing knowledge and expertise created by knowledge workers as they go about their work and making it available to a larger community of colleagues. Technology can support these goals, and knowledge portals serve as a key tool for supporting knowledge work.
11	Birkett, 1995	Bringing tacit knowledge to the surface, consolidating it in usable forms by which it is more widely accessible, and promoting its continuing

		creation.
Focus: KM and IT		
12	Strapko, 1990	Understanding the relationships of data, identifying and documenting rules for managing data, and assuring that data is accurate and its integrity is maintained.
13	Zeleny, 1987	Facilitation of autonomous coordination based on decentralised subsystems.
14	Maglitta, 1995	Mapping knowledge and information resources both on-line and off-line; training, guiding and equipping users with knowledge access tools; monitoring outside news and information.
Focus: KM processes		
15	Davenport & Prusak, 1998	Processes of capturing, distributing and effectively using knowledge.
16	Garvin, 1994	Creation, acquisition and transfer of knowledge and modification of organisational behaviour to reflect new knowledge and insights.
17	Albert, 1998	The process of collecting, organizing, classifying and disseminating information throughout an organisation, so as to make it purposeful to those who need it.
Focus: holistic nature of KM		
18	Alavi & Leidner, 1999	Knowledge management refers to a systemic and organisationally specified process for acquiring, organising and communicating both tacit and explicit knowledge of employees so that other employees may make use of it to be more effective and productive in their work.
19	Maglitta, 1996	Knowledge management in general tries to organise and make available important know-how, wherever and whenever it is needed. This includes processes, procedures, patents, reference works, formulas, "best-practices", forecasts and fixes. Technologically, intranets, groupware, data warehouses, networks, bulletin boards and videoconferencing are key tools for storing and distributing this intelligence.
20	Zuckerman & Buell, 1998	Knowledge management is the strategic application of collective company knowledge and know-how to build profits and market share. Knowledge assets, both ideas or concepts and know-how, are created through the computerised collection, storage, sharing and linking of corporate knowledge pools. Advanced technologies make it possible to mine the corporate mind.

Consequently, KM can be utilised to form and creates processes to enhance the organisation's development, by creating, acquiring, capturing, sharing and utilising knowledge whenever it needed (Loermans, 2002). According to the American Productivity and Quality Centre (APQC), KM is defined as the ability to get the right knowledge to the right people at the right time, so as to help people share and invest information into action in ways that drive performance improvement to the organisations (APQC, 2000). Furthermore, Ashok et al. (2016) highlight the importance of investments in knowledge management practices in

driving process innovation. Where interactions with existing users (exploitative in nature) helps deliver incremental process innovation, the management should make sure that radical process innovation endeavours are supported with external knowledge interactions, for instance, knowledge of new customers (exploratory in nature). Counting only on an organisation's internal knowledge interactions may result in innovation process alienation, as they may be blocked by their previous experience (Menguc et al., 2014). Therefore, organisational management should utilise external knowledge sources to radical innovation processes out of the internal and external knowledge interactions (Ashok et al., 2016).

The above-mentioned arguments point to the role of KM in driving organisational efficiency through continued organisational learning and employees' involvement in knowledge processes and practices (Grimaldi & Ripa, 2011; Cegarra-Navarro & Rodrigo-Moya, 2005). Moreover, KM practices improve the processes of decision-making and problem-solving which supports organisations in sustaining their market position in front of other competitors (Salleh & Ahmad, 2006; Birkinshaw & Sheehan, 2002).

This was also supported by Ribi re and Khorramshahgol (2004) who stress the important role of KM alongside with other quality resources in driving organisational performance and efficiency in order to meet the customers' expectations. In summary, during last twenty years, there were three major approaches of KM research that have been emerged; measuring knowledge, managing knowledge – either from the human capital perspective or from information technologies – and creating knowledge (Loria, 2008). In this study, the researcher will focus on both the management of knowledge practices adoption and challenges facing organisational change inertia.

3.2.1 The Sources of Knowledge

Knowledge exists in in public sector organisations and is attracting a greater attention than ever. Public sector organisations possess knowledge from different sources that can be either found endogenous (internal knowledge like employees know how) or exogenous (external

knowledge like membership database) depending on the type of knowledge: explicit or implicit (Spender & Grant, 1996).

The form of knowledge that is created and stored in the organisations' databases is endogenous knowledge, which is generated from the employee's experiences or is engrafted in the KM practices or from a chain of brain storming sessions among the organisations' employees, teams and stockholders, and retrieved when needed from the organisations documents, databases or repositories.

Instead, the organisational exogenous knowledge is based on external sources located outside the organisations, for instance, knowledge flows and outflows from the organisation subsidiaries to headquarters (Alharbi & Singh, 2013).

This concept of knowledge came from the belief that the knowledge is socially and collaboratively constructed and shared. Various researchers such as Ashok et al. (2016), Athreye et al. (2016), McAdam and McCreedy (1999), Baker et al. (1997) and Nonaka and Takeuchi (1995) all emphasise that knowledge cannot be exclusively held by any single organisation but by external sources that are inherently linked to the organisation, for instance, knowledge generated by suppliers, partners or customers, who are driving valuable contribution to the overall knowledge base of the organisation. Skyrme (2002) went further and developed seven strategic knowledge levers by analysing 100 KM initiatives in different organisations in both public and private sectors. Those seven levers were developed to support the organisations management with a deeper understanding of their knowledge sources and areas in order to drive efficiency. Table (4) presents Skyrme seven knowledge levers.

Table 6 Seven strategic knowledge levers, source: Skyrme (2002)

Focus Areas	Description
Customer knowledge	Developing deep knowledge sharing relationships. Understanding the needs of customers. Articulating unmet needs. Identifying new opportunities.
Knowledge-enhanced products/services	Knowledge embedded in products. Surround products with knowledge e.g. in user guides and enhanced knowledge

Focus Areas	Description
	intensive services.
Knowledge in people	Knowledge sharing fairs. Innovation workshops. Expert and learning networks. Communities of knowledge practice. People focused programs aim to continually improve workforce skills through development.
Organizational memory	Knowing what an organisation knows over space and time e.g. sharing best practices or recording lessons learned. Directories of expertise. Online documents, procedures and discussion forums. Intranets.
Knowledge in processes	Embedding knowledge into business processes and management decision making.
Knowledge in relationships (Stakeholders)	Improving knowledge flows between suppliers, employees, shareholders and community etc. by using this knowledge to inform key strategies.
Knowledge assets (Business Environment Insights)	Systematic environmental scanning, including political, economic, technology, social and environmental trends. Competitor analysis. Market intelligence systems.

3.2.2 Knowledge Ownership

Thus, if knowledge is not an exclusively possessed by a single organisation and is inherently connected to other external and internal sources, then who are the owners of knowledge? According to different arguments, knowledge resides and is owned at different levels: individuals, teams and organisations (Bollinger & Smith, 2001; Hibbard, 1997; Grant, 1997). For instance, knowledge workers are knowledge owners, and the organisations where that knowledge worker is employed can be considered as a knowledge aggregator or codifiers of their knowledge. The amount of knowledge an organisation can codify and generates is basically depend on the amount of knowledge used by the knowledge worker to solve a problem or finish a given task (Drucker, 1999). Moreover, Tsoukas extends this argument by emphasising the fact that knowledge cannot be held by either organisations or employees. He states that, “a firm’s knowledge cannot be surveyed as a whole; it is not self-contained; it is inherently indeterminate and continually reconfiguring” (1996, p. 13). This requires a continuous engagement in a contest of various knowledge bodies – e.g. employees, teams, groups, organisations, and stakeholders – to build sustainable organisational knowledge. Moreover, Kogut and Zander point to organisations as institutions for combining and

integrating knowledge through combining the organisations' individual capabilities and knowledge to drive learning and innovation:

“Creating new knowledge does not occur in abstraction from current abilities. Rather, new learning, such as innovations, are products of a firm's combinative capabilities to generate new applications from existing knowledge. By combinative capabilities, we mean the intersection of the capability of the firm to exploit its knowledge and the unexplored potential of the technology”(1992, p. 391).

Consequently, the above-mentioned arguments confirm that knowledge is owned and produced by individual or a group of individuals in an organisation, due to the fact that knowledge is built collaboratively and collectively in a social process of cooperation and interaction between organisations employees, groups, and stockholders (Zack et al., 2009), shaping a crucial vehicles of human activities which eventually contribute to knowledge-related processes (Kajamaa, 2011), including knowledge creation (Nosek, 2004), accumulation (Cacciatori, 2008), transfer (Szulanski, 1996), sharing (Di Maio, 2013) or reproduction (Holan & Phillips, 2004), and, ultimately, build a sustainable knowledge-based organisation.

Finally, organisations in both public and private sectors use different strategies to create new knowledge such as, individual practices, team collaboration and departmental networking. This takes place in daily routines, organisational practices and processes carried by the employees; in the case of the public sector organisations this goes a long way to become features of organisational culture (i.e. bureaucracy), and takes on a role in to play KM sharing and transfer (Tsoukas, 1996; Drucker, 1993).

3.2.3 Type of Knowledge

Knowledge owned by individuals can be traced through actions and practices (tacit knowledge) as they are doing tasks or solving problems. This type of knowledge is subjective and difficult to transfer since it exists inside the head of the individual. Instead, knowledge

captured in documents and stored in the organisation's data repositories is referred to as explicit knowledge, and this type of knowledge is objective and easy to be codified or transferred since it is easily retrievable. According to Nonaka and Takeuchi (1995), Tsoukas (1996), Spender (1996) and Nonaka (1994), organisational knowledge is classified into two types: the first type is the explicit knowledge that can be captured and codified in documents or databases, easily accessed and shared, for example, the organisations operational manuals, standard operating procedures, regulations, best practices, patents, lesson learned, case studies and research findings. This knowledge is shared with a high level of accuracy and structurally codified in an organised shape of data or information for a future recovery, such as an organisational database and spreadsheets etc.

Scholars such as Nonaka and Takeuchi (1995), Tsoukas (1996) and Spender (1996) define tacit knowledge in such a way that it includes the knowledge that individuals own such experiences and "know-how". Tacit knowledge is not easily accessible as it is often unknown to others, which makes it difficult to be capture, formalise or write down. Tacit knowledge is transferred through peer to peer interactions and trust. it is an unstructured type of knowledge and contains non-referenced information for recovery. In fact, most people are not aware of the knowledge that they themselves possess or of its value to others. Nonaka and Takeuchi (1995) expressed the meaning of tacit knowledge as an internal undiscovered power in their Socialisation-Externalisation-Internalisation-Combination (SECI) where they define knowledge into four modes, see Figure 1.

“First, the socialization mode usually starts with building a field of interaction. This field facilitates the sharing of members' experience and mental models. Second, the externalization mode is triggered by meaningful dialogue or collective reflection, in which using of metaphor or analogy helps the team members to articulate hidden tacit knowledge which is otherwise hard to communicate. Third, the combination mode is triggered by networking newly created knowledge to existing knowledge from other

sections of the organization, thereby crystallizing them into a new product, service or managerial system. Finally, learning by doing triggers internalization” (1995, p. 71).

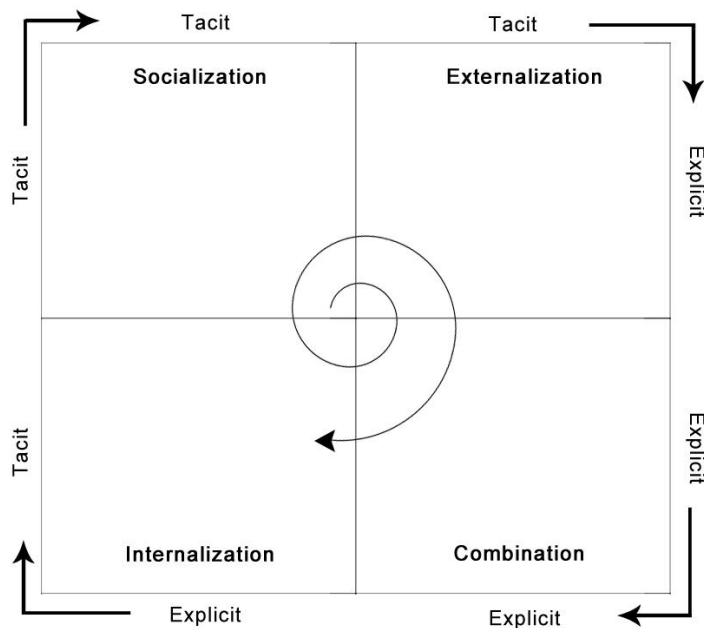


Figure 1 SECI model and the knowledge spiral, source: Nonaka and Takeuchi (1995).

3.2.4 Tacit Knowledge

Tacit knowledge is a form of knowledge that we cannot find in manuals, books, databases or files. It is the type of knowledge that is mentally possessed by an individual’s mind and technically expressed through practices, insights and assumptions. Liebowitz and Beckman (1998) refer to tacit knowledge as an automated knowledge that requires no time or thought to influence an organisation's decisions, and its forms the collaborative act among an organisation's individuals. Others, such as Polanyi (1985, p.4), describe it as “we can know more than we can tell” or doing things spontaneously, such as riding a bicycle. It is a highly unstructured subjective knowledge and usually can be traced back through the actions or the statements of the individuals who possessed it (Sternberg & Horvath, 1999). Tacit knowledge can be only transferred by its owners, through trust, on a peer to peer level, or in a group of members through using demonstrations and interactions to transmit their tacit knowledge to

others. The knowledge recipients can then apply this new tacit knowledge to improve their daily routines tasks (Sveiby, 1997). For instance, Davenport and Prusak (1998) emphasised that tacit knowledge transfer generally requires extensive personal contact. The transfer relationship may be a partnership, mentoring and apprenticeship but some kind of working relationship is usually essential. Such a relationship is likely to involve transferring various kinds of knowledge, from explicit to tacit. Therefore, it is crucial to any organisational management to aggregate this tacit knowledge and transfer it into valuable explicate knowledge that will be beneficial to the organisation (Smith, 2001). In fact, many organisations strive to aggregate their members' tacit knowledge through brainstorming workshop and knowledge sharing seminars, where the results of these workshops and seminars are articulated and documented for future retrieval.

3.2.5 Explicit Knowledge

Explicit knowledge refers to the easily accessed and codified knowledge, like academic research papers, operational manuals, copyrights and patents, which are codified in formal languages (Davenport & Prusak, 1998). Unlike tacit knowledge, the explicit knowledge is systemically structured in shapes that make it available to be communicated and shared through print, emailed and retrieved by any formal means. Explicit knowledge is often codified, stored in organisations databases clusters and accessed via organisational portals or knowledge management systems. Today, many organisations pay great attention to their explicit knowledge; they are always striving to codify, store and generate these knowledge assets, which can be reused in the future to solve similar cases of business problems or for training and development purposes (William and Amin, 2006). However, the amount of knowledge that an organisation can generate, codify and store essentially depends on the amount of knowledge sharing processes inside these organisations. According to Hansen et al. (1999), organisations must invest heavily in building a technology infrastructure, to enable and guarantee a higher level of knowledge sharing processes among its members and to easily gather and store their members' explicit knowledge. In addition, Smith (2001, p.314)

points that both types of knowledge can be distinguished by different features. In his empirical study, Smith compares and demonstrates these features and summarises it in the following table.

Table 7 Comparison of the use of the explicit and tacit knowledge in the workplace, source: Smith (2001, p. 314)

Explicit knowledge	Tacit knowledge
Explicit knowledge – academic knowledge or “know-what” that is described in formal language, print or electronic media, often based on established work processes, use people-to-documents approach.	Tacit knowledge – practical, action-oriented knowledge or “know-how” based on practice, acquired by personal experience, seldom expressed openly, often resembles intuition.
Work process - organised tasks, routine, orchestrated, assumes a predictable environment, linear, reuse codified knowledge, creates knowledge objects.	Work practice - spontaneous, improvised, web-like, responds to a changing, unpredictable environment, channels individual expertise, creates knowledge.
Learn - on the job, trial-and-error, self-directed in areas of greatest expertise, meet work goals and objectives set by organisation.	Learn - supervisor or team leader facilitates and reinforces openness and trust to increase sharing of knowledge and business judgement.
Teach - trainer designed using syllabus, uses formats selected by organisation, based on goals and needs of the organisation, may be outsourced.	Teach - one-on-one, mentor, internships, coach, on-the-job training, apprenticeships, competency based, brainstorm, people to people.
Type of thinking - logical, based on facts, use proven methods, primarily convergent thinking.	Type of thinking - creative, flexible, unchartered, leads to divergent thinking, develop insights
Share knowledge - extract knowledge from person, code, store and reuse as needed for customers, e-mail, electronic discussions and forums.	Share knowledge - altruistic sharing, networking, face-to-face contact, video conferencing, chatting, storytelling, personalise knowledge.
Motivation - often based on need to perform to meet specific goals.	Motivation - inspire through leadership, vision and frequent personal contact with employees.
Reward - tied to business goals, competitive within workplace, compete for scarce rewards, may not be rewarded for information sharing.	Reward - incorporate intrinsic or non-monetary motivators and rewards for sharing information directly, recognize creativity and innovation.
Relationships - may be top-down from supervisor to subordinate or team leader to team members.	Relationships - open, friendly, unstructured, based on open, spontaneous sharing of knowledge.
Technology - related to job, based on availability and cost, invest heavily in IT to develop professional library with hierarchy of databases using existing knowledge.	Technology - tool to select personalized information, facilitate conversations, exchange tacit knowledge, invest moderately in the framework of IT, enables people to find one another.
Evaluation - based on tangible work	Evaluation - based on demonstrated

Explicit knowledge	Tacit knowledge
accomplishments, not necessarily on creativity and knowledge sharing.	performance, and ongoing and spontaneous evaluation.

3.3 KM Management in Public Sector Organisations

Different researchers have indicated the importance of cultural change readiness in driving effective KM implementation (Taylor & de Loë, 2012; Rusly et al., 2012). Today, most of the public sector performance researchers are likely to focus on performance measurements tools and performance problems source analysis, rather than identifying the organisational practices that would support and enable public sector organisations to sustain and create efficiency (Choi & Chandler, 2015; Fernandez & Miles, 2006; Aranda & Fernandez, 2002).

Moreover, Akdere (2009) argues that before public sector organisations develop or design futuristic strategy plans and programmes, it is important to understand the KM's specific relationship with organisational development practices. Hence, taking into consideration the public sector organisations' relationship with their external societies, the researcher carried out literature analyses and reviews of challenges that might be faced in implementing KM and its applicable practices in this context. According to Teece (2000), public sector organisations need to understand the processes of KM practices and its surrounding characteristics to draw benefit; KM practices adoption is more than processes of transforming information.

Knowledge sharing takes place where there is trust and a shared feeling of ownership of goals. This is due to the kind of interpersonal relations between colleagues and social relationships within organisational teams (Burke, 2011). Gorry (2008) emphasises that to enhance staff services, a proper knowledge sharing among different public sector organisations should be established, showing cases of knowledge sharing influence in public sectors organisations including education, healthcare and social services. McAdam and O'Dell (2000) highlight that when improving quality, efficiency and, innovation in products

or services, and when reducing operating costs, there should be an active knowledge sharing process in both public and private sectors organisations.

Therefore, knowledge drives business value such as an innovation, improving performance, enhancing quality, or improving products and service to customers due to the KM characteristics and interdisciplinary approach (Ashok et al., 2016; Hlupic et al., 2002). For instance, Zhi-ze and Shuang-liang (2011) point out that effective KM initiative drives have reduced the internal cost of management and services, by re-engineering public sector process to enhance efficiency and provide service quality for citizens.

The benefits of KM are still not widely realised within the public sector organisational culture; this refers to basic barriers created by public sector organisations' policies and regulation, which many researchers believe to prevent the tacit knowledge transfer and active sharing of knowledge within public sector organisations (Raadschelders, 2005; Wiig, 2002). Handzic (2011) stresses that public sector organisations' knowledge stocks are influenced by the level of complex interactions inside the organisation.

For instance, in an empirical study from the Malaysian public sector, researchers pointed to the importance and need of knowledge sharing and exchange practices to drive value (Ismail & Yusof, 2008; Kasim, 2008; Dimitriades, 2005). Another study conducted by Abbass et al. on Pakistani public sector organisations disclosed a significant interrelationship between KM practices and the complexity of public sector organisational practices. So as to guarantee proper KM influence in public sector organisations, a KM strategy should be implemented to drive organisation performance (Abbass et al., 2011). Moreover, KM's role was obvious to drive better economic growth and improved equity in the Indian public sector organisations (Chawla & Joshi, 2010).

Moreover, researchers like Sotirakou and Zeppou (2004), and Syed-Ikhsan and Rowland (2004) point out that the Gulf Cooperation Council (GCC) region public sector organisations were falling behind other leading countries like Malaysia and Singapore in creating and

implementing the practices of KM. For instance, the Malaysian public sector had defined a long-term knowledge economy strategic master plan to drive their organisations in implementing successful KM implementation, while up until today, the GCC public sector organisations still lack common KM goals, which prohibits any effective implementation of future KM initiatives inside those organisations (Boumarafi & Jabnoun, 2008; Ikhsan & Rowland, 2004). The following table summarises several empirical studies on the topic of factors that impact a public sector organisation. The research tabulated below covers themes such as knowledge sharing, complexity, leadership, culture, measurement, process and bureaucracy, and covers a larger range of countries.

Table 8 Public sector empirical studies elaborated by the researcher

Reference	Public sector empirical study	Country
Ismail & Yusof, 2008; Kasim, 2008; Dimitriades, 2005.	Focuses on knowledge sharing in public sector, best practices, and barriers due to the organisation's internal culture and policies.	Malaysia
Abbass et al., (2011).	Studies the KM practices and the complexity of public sector organisation practices and its interrelations.	Pakistan
Chawla & Joshi, 2010.	Looks at the KM role in driving public sector performance.	India
Al-Alawi et al., 2007.	Aim to understand the essential role of organisational culture in nourishing knowledge and spreading it to drive performance in both public and private.	Bahrain
Boumarafi & Jabnoun, 2008.	Studies KM policies' role in raising the "know-how" and knowledge attributes inside UAE organisations culture.	UAE
Amyan et al., 2016.	Investigates the effective utilisation of KM in the Jordanian e-government system and suggests a model to support the Jordanian public sector for better efficiency.	Jordan
Girard & McIntyre, 2010.	Examines five elements of technology, leadership, culture, measurement and process, to provide a holistic approach for Canadian public service KM.	Canada
Abrudan et. al., 2011.	Knowledge sharing for the public sector through cross border collaboration.	Hungary and Romania
Khaled et. al., 2017.	Explores the importance of KM practices in Saudi public sector, and investigates the KM barriers and the best practices.	KSA
Bolici, 2002.	Aims to obtain a deeper understanding of problems which have prevented knowledge management from spreading among public administrations, and to identify the main research tasks, the major players	Italy

Reference	Public sector empirical study	Country
	involved and the most suitable implementation mechanisms needed to determine the best solutions for these problems.	
Heisig, 2016.	Examines the KM activities in public administration of four different European countries, and demonstrates that public actors are recognising the importance of information and knowledge for the public sector and the conscientious and systematic management of these resources, processes and enabling factors.	Austria, Germany, Switzerland, UK

Developing a KM culture inside a public sector organisation is not an easy task (Edge, 2005) due to the fact that public sector organisations' goals are typically harder to measure, more conflicting and more affected by different authorities and political influences in comparison to private sector organisations (Boyne, 2002; Julnes & Holzer, 2001; Rainey & Bozeman, 2000).

In addition, the hierarchical and bureaucratic nature of public sector organisations makes the KM sharing processes more difficult (Connelly et al., 2012; Riege & Lindsay, 2006; Chan & Liebowitz, 2005).

According to an empirical study conducted by Kasim (2008), all of the administrative and senior officers in 28 ministries located in Malaysia believe that the keystone for positive organisational performance is based on the organisation's KM practices.

However, there are still few empirical studies that clearly demonstrate how KM practices impact and transform bureaucratic and uncompetitive public sectors organisations into competitive organisations. During the last century, the Organisation for Economic Cooperation and Development (OECD) has worked to upgrade both policies and human capital practices inside the European public sector to meet the knowledge economy requirements (OECD, 1996). Hsu & Lin (2008) stressed that the organisational human capital is enriched by knowledge sharing practices, which would improve employees' competencies and organisational efficiency. In addition, public sector organisations need to reconsider their

bureaucratic structures, services, processes to suit the new stream of thinking and be able to compete effectively in the knowledge economy (Heng, 2000).

In today's knowledge economy, country measurement and comparisons are based on human development index, human capital, knowledge intensity, communication technology infrastructure and transparency, not on power or natural resources. This would require the public sector organisations to take the initiative and meet their citizens' demands and challenges. Unfortunately, this is not possible without having KM initiatives to prepare public sector organisations for a knowledge economy and to meet citizens' expectation (Omotayo, 2015; Seba & Rowley, 2010; Yuen, 2007).

Knowledge workers frequently transfer between public and private sector organisations, which causes the public sector organisations to suffer a serious loss in knowledge and intellectual capital drain (Misra et al., 2003). Hence, public sector organisations need to develop a KM strategy to avoid knowledge loss, to and capture, share, utilise, organisational knowledge in order to ensure that the organisation is able to deploy this knowledge in new service or product (Prusak, 2001).

Moreover, public sector organisations need to involve their employees in the design, implementation and measurement of organisational change, so as to overcome human capacity building and challenge (McKinnon, 2005) and to act responsively to citizens' demands and build a focused public administration (Sotirakou & Zeppo, 2005). The current KM processes in public sector organisations therefore need to be restructured to establish a new set of practices that would be embedded in the social and physical structure of the organisation (Khalifa & Liu, 2003).

This means that future KM initiatives in public sector organisations need to be more specific, customised, citizen-centred and more dynamic in order to think of innovation in terms of utilising external and internal factors services to cope with population growth, weak infrastructure compared to growing demands and increasing inequalities between countries

(Porter, 1998). According to the United Nations Public Administration Network (UNPAN) (2007), specific KM practices would help meet the rising expectations towards improving citizen participation, promoting political opportunities and improving operations quality of services provided for the knowledge economy.

Consequently, many developing countries like Singapore, Malaysia and UAE have realised the importance of having knowledge economy on their national agenda and prime economic strategy, continually restructuring their public sector services to make them more competitive and responsive to the global market changes (Asoh et al., 2002). Knowledge in public sector organisations is located in every part of the organisations, in people's minds, in organisational processes, and also embedded in corporate culture, manuals, reports or stored into different mediums. Hence, it is becoming essential to have an effective KM strategy and practices in order to overcome the public sector organisations' cultural and behavioural barriers that may prohibit the exchange of the organisational knowledge (Storey & Kahn, 2010; Bhatt, 2001).

Hence, the challenges facing public sector is not only knowledge development, it is how to conceptualise, understand, assess and adopt KM practices. It would be useful for public sector organisations to develop a transformational framework to overcome KM practices adoption barriers in order to communicate and improve organisational efficiency in today's knowledge economy.

Since it is becoming more important to serve the public sector organisations' citizens effectively with a customer centred solutions, the need for a reliable framework to sustain relations between cultural barriers, employees' involvement in knowledge-sharing and innovation is becoming essential (Rivera-Vazquez et al., 2009).

According to Rusly et al. (2012), knowledge acquisition and change readiness are found to be highly important for public sector organisations' services. These organisations need to develop and foster a new culture that is centred on citizens and supported by resources

through maintaining formal and informal dialogues to support capturing socially-based knowledge (McAdam & O'Dell, 2000). Today's citizens are highly knowledgeable and they expecting public sectors to be on top of newly created KM practices, as knowledge is increasingly and rapidly produced by more differentiated public sectors.

The OECD (2001) has pointed that the public sector fails in building socially based knowledge due to its emphasis on technology, rather than the focus on management processes of the people-related issues and culture. Therefore, public sectors organisations need to ensure proper participative culture and to enhance the formal and informal communication cycle at all management levels, which in this case depends on the executives' management skills and capabilities in driving this change.

To achieve such a transformation, public sector organisations need to present new structures that contribute to improving practices that enhance its capacity to develop, employ and utilise their human capital knowledge in effective service delivery (McLaughlin et al., 2008; Hsu & Lin, 2008; Oliver & Kandadi, 2006; Malhotra, 2005). Moreover, Magnier-Watanabe and Senoo (2008) highlight the importance of revising the main core organisational issues, norms, values, culture, people and any relevant business capabilities before starting any initiative in an organisation. This would support the public sector organisations in ensuring a continuous development by following a formal and informal practices patterns (Halawi et al., 2005).

Public sector organisations need initiatives that would improve service innovation. KM-centred initiatives can be one of the most suitable sources for sparking innovative services (Storey & Kahn, 2010). For instance, according to a study conducted on the Malaysian public sector, KM improved the work quality, organisational efficiency and decision-making, up-to-date information and a higher citizen satisfaction index (Yahya & Goh, 2002). Another study from the UAE highlights the role of KM policies in raising the “know-how” and knowledge attributes inside UAE organisational culture (Boumarafi & Jabnoun, 2008).

3.3.1 KM Practices inside Organisations

Although knowledge-sharing plays a crucial role in driving organisational value, some of its variables are still unexplored. As organisational knowledge is constructed on employees' knowledge that consists of skills acquired through experience, theoretical or practical understanding of the subject, passive involved or ignorant employees may negatively affect the organisational performance. As stated in the previous section, employees' knowledge sharing has been considered as a potential obstacle or to future success and performance driving (Cavaliere & Lombardi, 2015; Martin-Perez & Martin-Cruz, 2015). Chiem (2001) points to the importance of encouraging the employees to share their knowledge, experiences and "know-how". Chiem carried a comparison between both public and private sectors to understand the importance of knowledge-sharing and how both sectors encourage their employees to share knowledge. The following table represents the incentives for sharing knowledge..

Table 9 Incentives for sharing knowledge, source: Chiem (2001)

	Private Sector	Public Sector
Institutional goals	Improves sales and profit.	Fulfil mission of social service.
Restrictions on information	Competitive reasons such as safeguarding trade secrets and business strategies.	National security, privacy, regulatory and political concern.
Aim of sharing	Operational efficiency, sales growth, cost saving, innovation and bottom line profits.	Decrease bureaucratic barriers, public frustration and employee dissatisfaction.
Motive for sharing	Formal tied to job performance evaluation, repercussions for under achievers.	Less often tied to performance evaluation, more often with grass-roots origin.

However, employees are at times ignorant of their knowledge value, so they avoid sharing it with others. Kruger and Dunning (1999) argue that many individuals often find it difficult to recognise the importance of their knowledge to others. This could raise the risk of taking inappropriate decisions and negatively impacting upon organisational performance. However, up until today there is no common definition of the term "employees' ignorance"; different researchers define this term as organisational knowledge ignorance caused by employees'

passive acts towards crucial organisational knowledge and information (Israilidis et al., 2015; Hislop 2013; Zack, 1999). Researchers such as Zack (1999) indicate that managing organisational ignorance can drive competitive value to organisations which successfully integrate the fundamental KM operations in their strategy. Alvesson and Spicer (2012) emphasise the managing of organisational ignorance in order to avoid its negative impact on knowledge creation, sharing and transmission processes. In addition, Israilidis et al. (2015) and Roberts (2012) suggest that, to improve knowledge sharing in technology-intensive organisations, management should start managing their organisational ignorance. Thus, employees may theoretically underestimate the value of sharing and acquiring new knowledge; they may justifiably feel that their contribution in knowledge sharing process is a fruitless contribution, or, alternatively, highly ignorant employees who lack prior knowledge and experience may be prevented from participating in knowledge sharing activities and gaining new knowledge from others (Israilidis et al., 2015). In this regard, Cohen and Levinthal (1990, p. 128) emphasise that “one’s ability to recognize the value of new information, assimilate it and apply it to commercial ends is largely a function of the level of prior related knowledge”.

Thus, newly acquired value knowledge from external environments may not be well recognised due to employees’ ignorance, which is seen as a barrier for knowledge sharing inside organisations and negatively impacts its competitiveness. Moreover, employees’ lack of skills “know-how”, best practices of the existence or utilisation of new technologies and tools such as Knowledge Management Systems (KMS), could all limit knowledge flows to different organisational operational teams and slow down their performance. Many researchers have emphasised the role of employees’ traits, skills, which include work experience, orientation to collaboration, orientation, focus, ignorance, and how those traits and skills may either prevent or facilitate knowledge sharing inside organisations, depending on its level of efficiency or deficiency (Aliei et al., 2011; Chow & Chan, 2008; Bock et al., 2005) employees with high level of ignorance can be viewed as a deficiency that prevents

employees from effectively managing the knowledge owned by organisations. On the other hand, employees with a lower level of ignorance are viewed as an efficient driver or a new knowledge contributor for successful organisational knowledge sharing processes.

Finally, organisational performance is built on its human capital capabilities and competencies; hence, employees' ignorance could be considered as an obstacle for knowledge sharing and acquiring new knowledge from internal or external environments.

Organisation's effectiveness is built upon employees' knowledge (Whiteoak & Mohamed, 2015; Gruman & Saks, 2011; Sveiby, 1997) and their contributions to tacit knowledge; therefore, involvement in knowledge sharing has become a major interest for organisations looking to drive value (Vestal, 2012; Ardichvili et al., 2006).

In this regard, researchers have pointed to the importance of fostering knowledge sharing behaviour among organisations' employees (Akhavan, et al., 2013; Tan, 2015; Bock et al., 2005) by setting economic incentives (e.g. rewards) and social variables (e.g. motivation of employees) which was continuously recognized as a promising factor in motivating knowledge sharing culture within the organisations (Akhavan, et al., 2013; Bock et al., 2005; Soley & Pandya, 2003; Carmeli et al., 2011). A number of researchers have indicated a set of specific variables that may also influence the organisation by either enabling or inhibiting knowledge sharing (Yoo & Torrey, 2002). Constructs, such as trust (Dulayami & Robinson, 2015; Ding et al., 2015; Ritala et al., 2015), anticipated reciprocal relationships (Chen and Fong, 2015; Pee & Kankanhalli, 2015; Goh et al., 2015), identification (Tong et al., 2015; Mueller, 2014; Seba et al., 2012), image (Wasko & Faraj, 2005), organisational rewards (Chen and Hew, 2015; Pee & Kankanhalli, 2015), knowledge self-efficacy (Tangaraja et al., 2015; Van Acker et al., 2015) and loss of knowledge power (Davenport & Prusak, 1998) have all been identified as variables influencing employees to engage in knowledge sharing.

However, Henttonen et al. point to the great advantage of individuals sharing knowledge with peers in the organisation. Firstly, sharing knowledge "signals the beneficial utilisation of

relevant skills and competencies, as other members have deemed receiving such knowledge useful”; secondly, sharing knowledge “improves the organisational embeddedness” and raises the profile of the knowledge sharer, who “becomes a more visible and desirable source of knowledge” (2016, p.754).

The researchers mentioned earlier have emphasised the role of employees in driving knowledge creation and innovation for organisations in public and private sectors, Despite the previously outlined variables, some researchers have indicated employees’ ignorance as a variable inhibiting knowledge sharing inside an organisation (Cavaliere & Lombardi, 2015; Martin-Perez & Martin-Cruz., 2015; Israilidis et al., 2015; Hislop, 2013; Zack, 1999). The literature lacks sufficient evidence to clarify whether employees’ ignorance can negatively impact employees’ involvement and knowledge sharing inside organisations.

Israilidis et al. (2015) define employees’ ignorance as a lack of knowledge, information or education, which implies a lack of awareness and involvement about something, rather than inability to understand; it is mainly caused by the circumstances of an individual’s life and can be reduced through the acquisition of knowledge. Thus, theoretically, employees who do not share the knowledge that they possess when performing daily routine tasks and activities is probably down to the recipients’ lack of appropriate knowledge i.e. employees’ ignorance (ibid).

Due to their ignorance, employees may underestimate the value of sharing and acquiring new knowledge; they may justifiably feel that their contribution in knowledge sharing process is a fruitless contribution. Such difficulties, however, can be resolved when both knowledge owners and seekers recognise the limits and extent of the knowledge they possess (ibid). Knowledge is an important contextual factor that fosters efficiency and innovation of the organisations (Cassiman & Valentini, 2015). Researchers such as Kosturiak (2010) have described KM as a set of practices, policies and tools that links employees’ knowledge to new sources of value (e.g. products, services and processes) to help create innovative

solutions, which means that innovation adds value through knowledge. Moreover, the challenge for organisational management is to determine the proper method of maintaining and managing such resources and exposing its competitive value to drive efficiency and performance. In this regard, Nonaka and Takeuchi (1995), Koskinen (2000), Koskinen et al. (2003), Lai et al. (2014); Casanueva et al. (2013), all argue that when organisations understand their knowledge, then knowledge will undoubtedly drive improvements in organisational efficiency and performance.

Porter (1990) has pointed out that in order to drive efficiency, organisations need to apply new knowledge to commercialisation and driving value. Organisational efficiency activities mean that the members of an organisation bring tacit knowledge and skills to help build and develop new products and services. KM facilitates the exchange of efficient and effective information and cost benefits (Afuah, 2003). Researchers Kamara et al. (2002) pointed to KM as a driver for organisational innovation and process efficiency. Also, Nonaka and Takeuchi (1995) have highlighted the role of KM role creating new knowledge, disseminating it throughout an organisation and embodying it in products and services.

To achieve such role, organisations need KM to locate innovative knowledge in external environments, import it into the organisations' new work practice, and support it in driving efficiency (Maqsood & Finegan, 2009; Wilson, 2007).

Moreover, knowledge drives organisational efficiency which can be identified through individual involvement with knowledge embedded in their daily work routine, to develop new knowledge and drive value in products or services (Stanovicic et al., 2015; Schmiedel, 2015). To do this, an organisation needs to involve their employees in knowledge sharing practices by applying different economic and social involvement variables (Akhavan et al., 2013). This section so far discusses KM within organisations, which impacts the level of organisational efficiency, taking into consideration employees' role and involvement which ultimately improves performance.

Thus, knowledge drives positive influences on a firm's innovativeness (Jiménez & Sanz-Valle, 2011; Cohen & Levinthal, 1990). Today, organisations compete in highly competitive and dynamic markets. Under these circumstances, organisations should sustain their knowledge sources and ensure it is continuously fed by new knowledge. A new knowledge generation means new products and services which will favour the organisation over market competitors in the innovation race, improving organisations' performance, and efficiency (Jiménez & Sanz-Valle, 2011). Innovation enables the organisations to protect themselves from highly uncertain, unstable markets scenarios, making organisations more capable of seeking new opportunities and exploiting existing ones more efficiently (Matzler et al, 2013). Efficiency becomes even more important for organisations that operate within both public and private sectors. Moreover, efficiency is a key factor in creating and sustaining an organisations' competitive advantage, which in turn improves organisations' overall performance. The more innovative organisations tend to be, the more flexible their structures are. Consequently, organisations find the adaptation process to business environment to be easier. This adaptation enables organisations to leverage opportunities better than competitors (Damanpour & Gopalakrishnan, 2001).

To generate economic value, organisations should sustain capabilities by infusing new knowledge and innovation into their operations, a process which requires knowledge sharing, high knowledge awareness and employees' involvement in the innovation process and knowledge creations and sharing. This section concludes with the role of knowledge management as a source of efficiency to drive value and competitive performance to organisations.

3.3.2 KM Practices Adoption and Performance

The KM global definition is referred to a set of processes related to the organisation's ability to create, acquire, store, maintain and spread their knowledge (Dalkir, 2013; Durant-Law 2009; Drucker, 1998). This notwithstanding, KM has been introduced differently by other researchers. For example, Jain and Moreno (2015) depict KM as a process of continually

managing knowledge of all kinds to meet existing and emerging needs, as well as identifying and exploiting existing and acquired knowledge assets and developing new opportunities.

Ives et al. (1997) describe KM as an effort to make an organisation’s knowledge available within the organisation when needed, where needed, and in the correct approach to improving their performance. Alharbi and Singh (2013) argue that many organisations have agreed on the relationship between knowledge flows and driving better performance. Similarly, Rao (2005) introduces KM as a systematic discipline and set of approaches which enables information and knowledge to grow, flow and generate value within the organisation. In this regard, Davenport (2013) and Nonaka et al. (2014) have introduced KM as the process of creating, collecting and converting individual’s knowledge in a manner of value to the organisation. Although the above researchers have agreed that KM seeks to transform knowledge at different levels (e.g. organisational, team and individual) to create value in organisations, none of these definitions has provided a clear direction on how to manage organisation’s knowledge to drive performance (Bagnoli & Vedovato, 2014).

Moreover, KM differs from one organisation to another due to sector’s context, environment and culture. For instance, copying and implementing private sector’s KM frameworks and models may be useless in the public sector. Therefore, many researchers went on to identify and examine key KM enablers in organisations and its relevance in driving performance. The table below presents how KM practices impact the organisational performance.

Table 10 KM practises driving organisational performance

Knowledge Management concept	Type of Performance impact	Enabler Variables	Research context	Researchers
Knowledge flows and resource modelling (human, learning process).	Organisation competence development.	Knowledge workers.	Conceptual paper, service industry.	Rózewski et al. 2015.
Knowledge ambiguity and knowledge	Innovation performance.	Organisations management and the process	Empirical paper, service industry.	Ciabuschi et al.2012.

Knowledge Management concept	Type of Performance impact	Enabler Variables	Research context	Researchers
specificity of innovations.		of administration.		
KM strategy (codification and personalization)..	Financial performance, process performance, internal performance.	Innovation.	Empirical study, service industry.	López -Nicolas, & Merono-Cerdan, 2011.
KM strategies (infrastructure, human factors)	Business performance (growth, profitability).	Human capital and technology infrastructure.	Empirical study, service industry.	Chen & Huang, 2012.
KM strategy (human, system).	OP (indicator not stated).	IT infrastructure.	Empirical study, service industry.	Roy et al., 2012.
Defining organisation knowledge context.	Organisational performance	Organisational learning element.	Review of the literature. public sector.	Rashman et al. 2009. .
Knowledge management capability processes.	Organisational performance (quality, innovation, customer satisfaction, employee relations).	Human capital, organisational learning and innovation.	Empirical study, technological companies.	Kuo, 2011.
KM capability - knowledge infrastructure capability (technology, organisational culture and structure.	Organisational performance.	Technology, human capital and culture.	Empirical study and service industry.	Mills & Smith, 2011.
Knowledge capacity processes (acquisition, sharing and application).	Organisational performance and the process of capacity building.	Strategic human capital management strategies.	Empirical study, service industry.	Pekka-Economou & Hadjidema, 2011.
Knowledge assets relationship to organisations performance.	Organisation performance.	Organisational context, design and culture. People's involvement in knowledge sharing.	Empirical study, public sector.	Syed-Ikhsan and Rowland, 2004.

Knowledge Management concept	Type of Performance impact	Enabler Variables	Research context	Researchers
Critical Success Factor of KM.	Organisational performance (financial, customer, internal process, learning and growth perspectives).	Human capital, information technology, leadership, and organisational learning.	Conceptual paper, service industry.	Hassan & Hakim, 2011.
Customer KM (team learning, collaborating innovation, and creating customer value).	Motivational organisations performance.	Learning organisation, communication and cooperation.	Empirical study, service industry.	Shieh, 2011.

KM is increasingly seen as a guiding force in organisational development, creating organic approaches to understand the utility and key role of knowledge processes in driving business performance. However, it is important to understand KM at the organisational level and to understand how organisational knowledge enables higher efficiency. For instance, we should understand the role of technology in enabling knowledge sharing and exchange and in improving the organisational knowledge database.

Furthermore, KM practices such as sharing knowledge within an organisation play a vital role in building and sourcing the organisation's KM (Bock et al., 2005). Ipe (2003) defines knowledge sharing as an act of making knowledge available to others inside an organisation and supporting the management in sustaining their employees' learning and experience expansion throughout the organisation. Moreover, others argue that once knowledge is shared and knowledge is created (Nonaka & Takeuchi, 1995; Nonaka et al., 2006), it will be used to develop new products and value services.

Moreover, for an organisation's employees,, sharing knowledge is a process of mutual learning; both the knowledge transmitter and its recipient exchange ideas and acquire new knowledge (Maçada & Luis, 2013). However, it is quite complex for the organisations to

examine the factors that motivate employees to share knowledge (Matzler et al., 2008; Cummings, 2003). even though a number of researchers have pointed to knowledge sharing as a driver of innovation (Al Saifi, 2015), of organisational performance (Chen & Fong, 2015) and of efficiency (Chen & Fong, 2015) and of organisational survival (Low & Ho, 2016).

Yet it continues to be difficult to motivate knowledge sharing behaviour because knowledge typically resides tacitly in employees' minds, and it is hard for organisations to extract it without the employees' initiative to engage in knowledge sharing behaviour (Ipe, 2003). For many organisations, knowledge sharing is a major source of new tacit knowledge and ideas, with an intention to be made explicit and used to drive value (Zhang et al., 2015).

Therefore, it is essential for organisations to involve their employees in sharing knowledge, especially the tacit knowledge. This can be achieved through developing strategies – both economic and social – to foster employees' involvement in knowledge sharing within these organisations (Akhavan, et al., 2015; Tan, 2015). Otherwise the employees would be reluctant to share knowledge, especially the tacit kind, in an organisation that does not recognise or appreciate knowledge sharing (Tong et al., 2015), considering that the employees are aware of the importance of knowledge sharing in driving organisational performance and innovation (Nesheim & Smith, 2015).

Moreover, KM practices have been always considered a key strategic resource for organizations (Zack, 1999). In an empirical study conducted by Treacy and Wiersema (1995), the results shows that most of the organisation KM practices and KM initiatives were aligned with strategic value driving, financial improvements and developing competitive advantages. Other studies examined the KM practices qualitatively stressed the positive relationship with organisational performance (Davenport & Prusak, 1998; Nonaka, 1994) and similarity. Other quantitative-style investigations stressed how KM practices positively

impact business performance (Darroch & McNaughton, 2003; Lee & Choi, 2003; Schulz & Jobe, 2001; Simonin, 1997; Tanriverdi, 2005). The following table shows different empirical studies investigating, objectively and subjectively, the relationship between KM practices and organisational performance. The key finding of these studies is that there is a positive correlation between KM practices and business performance.

Table 11 Relationship between KM practices and organisational performance, adapted from Zack, McKeen and Singh (2009)

Article	Nature of study	Study method	Key finding(s)
Chuang (2004)	Empirical	Survey	The study builds KM capability from four KM resources – technical, human, cultural and structural. The KM capability is related to competitive advantage.
Clarke & Turner (2004)	Empirical	Case study	It is argued that the RBV view of KM is limited because it emphasises knowledge that must be protected and unique. But some organisations in Australia build competitive advantage by building alliances and relationships. Thus, KM needs a broader perspective than simply RBV.
Darroch & McNaughton (2003)	Empirical	Survey, secondary	Organizations with KM orientation outperformed organizations with market orientation.
Forcadell & Guadamillas (2002)	Empirical	Case study	KM allows Irizar (a company in Spain) to continuously innovate. Firm culture plays a significant role at the company.
Gloet & Terziovski (2004)	Empirical	Survey	KM, when implemented with human resource management practices and IT practices, leads to greater innovation within an organisation.
Gold et al. (2001)	Empirical	Survey	A capability model of KM is built and it is shown that knowledge infrastructure capabilities and knowledge processes capabilities impact organisational performance.
Gupta & Govindrajana (2000)	Empirical	Case study	Organisations must mobilise new knowledge faster and efficiently to gain advantage.
Kalling (2003)	Empirical	Case study	The effect of KM on organisational performance is contingent on various firm level and organisational level

			contingencies. KM is divided into three processes – knowledge development, knowledge utilisation and knowledge capitalisation. Each process has its own contingencies factors and performance outcomes.
Lee & Choi (2003)	Empirical	Survey	The study shows that KM enablers affect KM processes, which in turn affects organisational performance through intermediate impacts.
Liu et al. (2004)	Empirical	Survey	KM is positively correlated to performance.
Sher & Lee (2004)	Empirical	Survey	KM affects dynamic capabilities, which in turn affects a firm's competitive advantage.

More specifically, researchers have found that KM practices have an impact on various intermediate measures of organisations strategic performance – such as customer intimacy, new products, new business models and operational excellence – and those intermediate measures in return are linked to the organisations' financial performance. Hence, organisations in both the public and private sector should encourage knowledge sharing, since it is recognised as the key enabler for improving business performance (Kim & Yun, 2015). Based on this evidence, it was concluded that knowledge is power, and that the KM practices have a positive impact on the organisations financial performance (Lee & Choi, 2003).

3.4 KM Barriers in the Public sector

Public sector KM is a research area of growing importance, which has great potential to impact public sector organisations' performance (Edge, 2005). KM is a powerful efficiency enabler in all of the public sector areas (McAdam & Reid, 2000). However, developing a KM culture inside a public sector organisation is not an easy task (Edge, 2005), due to the fact that public sector organisations' goals are typically harder to measure, more conflicting and more affected by different authorities and political influences in comparison to the private sector organisations (Boyne, 2002; Julnes & Holzer, 2001; Rainey & Bozeman, 2000).

Furthermore, public-sector organisations suffer departmental barriers, which are major obstacles for knowledge sharing, delivery and transformation in comparison to the private sector (since private sector does not suffer such constraints) (Gau, 2011; Hussain & Wahba, 2002). Therefore, public sector practitioners must understand that their organisation's environment is unique and particular, thus their stakeholders and accountability differ significantly from those in private sector (Van der Wal et al., 2008; Allison, 1986).

Hence, what is successfully applied in the private sector is not necessarily applicable to the public sector, due to the different context and environment in each of the sectors. Moreover, importing and implementing KM models from the private sector that have been developed without taking into consideration the unique and particular context of the public sector organisations will be ineffective (Riege & Lindsay, 2006; UNPAN, 2007). However, only a limited number of research studies have been undertaken about KM in the public sector, compared to only one carried out on KM in the private sector (Oluikpe, 2012; Ringel-Bickelmaier & Ringel, 2010). Numerous researchers have presented KM as a performance driver in the public sector.

For instance, Arora (2011) argues that public sector efficiency and performance can be fostered by KM approaches. Chawla and Joshi (2010) found that private sector performed far more effectively than the public sector in understanding various dimensions of KM. Girard and McIntyre (2010) support organisations' culture, leadership and technology as drivers for successful KM in public sector organisations. Currie et al. (2008) point out the limitation(s) of KM in relation to the issues of professional culture in public sector, while Edge (2005) indicates the non-collaborative culture infused across the public sectors. Syed-Ikhsan and Rowland (2004) point to the role of organisational culture and organisational structure in implementing successful KM initiatives. Asoh et al. (2002) found that organisational culture plays an important role in influencing knowledge sharing.

Berce (2003) pointed to organisational culture as the main factor in building a knowledge-based public sector. Taylor and Wright (2004) observed that organisational culture is an

important driver for successful knowledge sharing in the public sector. Abass et al. (2011) found that a public sector organisation's performance is directly related to the KM practices inside the organisation. Al-Adaileh and Al-Atawi (2011) indicate that KM theories applied in different cultural settings might not be useful due to cultural differences that reinforce certain organisational dimensions. Skok and Tahir (2010) note how individuals could be the largest barriers of KM within public sector organisations. Kumar and Kumar (2010) indicate that knowledge sharing impacts the KM and enrich efficiency in public sector organisations. Shehabat and Mahdi (2009) addressed the potential of using human knowledge to provide an efficiency in public sector organisation.

Hussain and Wahba (2002) support the significance of knowledge sharing culture and focus on the role of human being more than of technology for driving performance in public-sector organisations.

Finally, researchers have argued for the role of KM in driving performance, competence and innovation inside the public sector, taking into consideration the unique context and culture of those organisations. However, none of the above researchers presents a framework to support the public sector organisations in managing their KM to drive performance. Nor do they understand the various fragmented relations that are found to be relevant to KM, for example, knowledge sharing, employees' involvement, innovation and organisational culture.

3.5 Public Sector Organisational Culture

Organisational culture is identified as a structure of shared meaning, norms, beliefs and values which distinguish one organisation from another (Schein, 2010; McDermott & O'Dell, 2001). Some academics refer to it as an adaptive process that is shaped as organisations face external and internal challenges and learn how to deal with them (Kiger, 2005; Rubis et. al., 2005). In this regard, Kwantes and Boglarsky (2007) note that organisation culture shapes one organisation's distinctive identities from another. Others such McDermott and O'Dell (2001) have included the individuals' practices and the way they

interact and behave inside the organisation as part of organisational culture. Kwantes and Boglarsky . (2007) argue further that organisational culture can be seen as two parts: the first part relates to the beliefs and norms contained in an organisation's mission and set of values, and the second part suggests that the individual's interaction and behaviour should be seen in the form of organisational values and behavioural norms, for instance, teamwork, knowledge sharing, professional ethics and quality.

Organisational culture is the mirror reflections of both behaviour and organisational traits that shape, control and imbue the attitudes of individuals within an organisation, and also influences decision-making (Schein, 1996).

In the public sector, organisational culture is developed and defined by individuals who come from a local culture, mixing with others (such as fellow public sector organisations and employees) from a similar or distinct cultural setting. Once those individuals have begun working and interacting with each other, this impacts upon the culture of the organisation. They subsequently shape ways of new organisational behaviour and attitudes which eventually define the organisation's culture. Schein (1996) emphasises that in organisational culture, assumptions are invented, discovered, constructed and developed by a group of individuals in order to adapt to and cope with their organisation's problems during the process of integration. These assumptions are usually shaped in form of organisational values and traits, which are transferred to the new employees joining the organisation and indicated to them as the only right way to solve and deal with the organisation problems.

Others, such as Bhaskaran and Sukumaran (2007), emphasise that organisational culture represents all of the prevalent values, attitudes and behaviours of the organisation members, which gives an organisation's culture its distinguishing characteristics. In a case study of public sector customers' quality service measurement, Nwankwo et al. (1994) assert that to support public sector leadership in achieving a high-quality customer service, it is essential to promote a quality service culture inside public sector organisations. This can only be achieved by understanding what the public sector organisation employees are doing. For

example, “the way things are done around here” (Goffee & Jones, 1998, p.9) is considered as part of an organisation's culture. This particular phrase is a very common one that refers to the current culture of an organisation (Tsoukas, 1996).

In addition, public sector organisations’ policies classify the documents as open, secret, confidential or top secret (Syed-Ikhsan and Rowland, 2004). Such policies develop stress among the public sector employees about knowledge acquisition and sharing, even though they are endowed with authority to view these documents but not allowed in practice due to a culture of “the manager determines it all and wait for your time syndrome”. Cong and Pandya noticed that the structure of the public sector organisations were divided into central and non-central units and departments, which results in them developing their own protective strategy based on the concept of knowledge is power:

“the structure of the public sector organisations has traditionally been compartmentalised. ‘Silo’ is probably the best word to describe it. ‘Need to know’ basis is part of public sector culture. ‘Knowledge is power’, ‘what’s in it for me’, and ‘not invented here syndrome’ is typical mindsets of the manager and staff in organisations. In such an environment, information and knowledge are hardly ever shared across different units and different organisational levels” (2003, p.30)

This creates passive knowledge workers and kills the knowledge sharing process due to lack of trust within public sector organisations (Dietz & Den Hartog, 2006; Collins, 1997). An organisation with a culture of a lack of trust will result in driving behaviour and practice of knowledge hoarding (Milne, 2007).

Although there is a big push for knowledge-based efficiency, employees of public sector organisations show an inclination to hoard whatever knowledge they have because of their belief that knowledge is power. Even if there are growing calls for knowledge sharing and exchange by an organisation's leadership, the mindset of the employees is as follows: if we share our knowledge today, then what will be our relevance with the organisation tomorrow? Therefore, changing a public sector organisation culture is not an easy task. In this regard,

Parker and Bradley points that “there is a significant body of literature that draws attention to the difficulty of changing organisational culture on the grounds of that culture is deeply ingrained in the underlying norms and values of an organisation and cannot be imposed from above” (2000, p. 137). To drive change in public organisations, senior executives should work hard to promote a new culture based on norms, and trust among employees. Building trust between an organisation’s individuals will result in a higher level of knowledge sharing and driving greater value and efficiency to the organisations. Willem and Buelens highlight the role of trust within an organisation and confirmed the dominant positive impact of trust on the knowledge sharing variables, which has been recognised in several other studies: “it [is] [trust that [is] important, [but] not as part of informal or lateral coordination or developed through identification. Not only would people share more knowledge in an environment of trust but also knowledge sharing would be more effective” (2007, p.597). It then becomes evident that public sector organisational culture is the result of years and years of accumulated routines, policies and following the bureaucratic procedures. The phrase “the way things are done around here” encapsulates the issue of culture (Goffee & Jones, 1998, p.9). Thus, changing a public sector organisation is not an easy mission, but it is possible with trust, agility and the right people. The following section elaborates the concept of organisational change inertia in public sector, and how it impacts upon internal culture change initiatives within organisations.

3.5.1 Organisational Inertia

The word inertia originally refers to objects’ resistance to change in motion. This means that the objects resist the change and keep maintaining the same patterns of motion. The concept of organisational inertia has been used by many researchers to point to the organisational tendency to resist change, marinating old routines and maintaining the status quo of organisational practices. In this regard, “inertia in successful organisations is caused by the belief that the status quo has lower organisational risk because it does not cause the strains of asking managers to change the activities of their subunits” (Greve, 2003, p.159). However,

scholars argue that management tries to maintain the status quo and old business activities because it is deemed a safer option. Although this could be seen as the right decision to take, it impacts upon the organisation's inability to accept new KM initiatives and new technology. This is due to the accumulation of culture that the status quo carries no risks. Dubina and Carayannis highlight the importance of the organisation culture in driving the change processes, “the organisational changes that encourage knowledge management to implement strategic changes (such as the introduction of new technology) are affected by the existence of cultural values that can either contribute to this change or make its implementation difficult” (2016, p.110). Hence, management has to challenge the internal factors that cause or even maintain inertia, while supporting the required changes to ensure the successful adoption of new organisations initiatives.

Other researchers point to the negative impact of inertia on an organisation’s information flow, knowledge transfers and change practice to facilitate organisational learning (Kogut & Zander 1992; 1995; Teece, 1982). Learning organisations tends to be more agile, compared to traditional organisations, in changing their routines and capabilities as their environments changes and evolve, and faster in responding to changes in their organisation’s environment. This requires a continuous change in routines and internal capabilities to empower organisational change, development, learning, and to drive innovation faster than competitors or at least preclude imitation temporarily (Zollo & Winter, 2002; Fransman, 1994; Cohen & Levinthal, 1990).

Miller points to the impact of change inertia on an organisation's ability to change and adapt new organisation development practices, such as new organisation routines or knowledge practices adoption (1990). Miller also indicates three organisational factors that act as barrier to change: firstly, organisational success can reinforce the tendency for managers to stick to their routines and activities, which may not be successful in a new context. Secondly, power and politics play a role in reducing novelty and innovation, especially in the public sector where organisations stick to the organisation of structural authority. Finally, an organisation's

actions are driven by routines and daily practices rather than context analysis (Miller, 1990; Greenwood & Hinings, 1988).

Furthermore, other researchers point out that inertia does not imply organisational stability, it means that an organisation's ability to change is slow, and it will require more time to transform resources and capabilities. Ahrne and Papakostas (2001) argue that the success of an organisation is often based on a set of standard routines and strictly following certain procedures, so establishing an organisation is very much about creating inertia (cf. March & Simon, 1958; Thompson, 1967).

Similarly, individuals accumulate resources and knowledge in order to perform organisational routines and to deliver a product or a service over time. Arthur Stinchcombe (1965) argues that organisations created over a point of time tend to keep their foundation routines and activities throughout their existence. This phenomenon is explained as: "traditionalizing forces, the vesting of interests and the working out of ideologies" (1965, p. 169). Hannan and Freeman (1989) also lend support to aforementioned phenomenon when they highlight that organisations suffer from two types of pressures, internal structural and external environmental, both of which lead to inertia. Alfred Chandler (1962) stressed that one of the important sources of inertia inside the organisations is the managers who stick with daily routines to keep the organisation going. Similarly, Parker and Bradley have noticed that organisational culture is a barrier to change. This is because the roots of organisational culture are embedded within the norms and the policies of an organisation:

"There is a significant body of literature that draws attention to the difficulty of changing organisational culture on the grounds of that culture is deeply ingrained in the underlying norms and values of an organisation and cannot be imposed from above" (2000, p. 137).

The authors cited above conclude that organisation inertia is a result of organisational routines, standard activities and action, established to drive success and performance of an organisation through processes of standardisation. However, the current market is changing rapidly and organisations need to be flexible and agile in adapting to their changes and

trends. Scholars argue that organisational bureaucracy, management capabilities, internal power and politics preclude an organisation from adapting to its new environment. Thus, a relatively a new market entrant may be relatively more competitive compared to well established organisations just because new organisations have the capacity to adapt to market change more quickly. Management capabilities play an important role in driving change inside an organisation, which can be achieved through information technology, process rationalisation and, most importantly, by promoting an appropriate culture of sharing knowledge, trust and innovation. Nonetheless, scholars highlight that such change will be faced with many forces, such as those who are taking advantage of old organisational culture. In this regard, an old quotation points out that the processes of change will be painful with no certainty of success:

“ . . . there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old institutions and merely lukewarm defenders in those who would gain by the new ones” (Niccolo Machiavelli (1469 - 1527)).

A survey carried by the Public Management Committee (PUMA) in 132 public sector organisations shows that in 42% of the surveyed public sector organisations of twenty OECD member countries, organisational change inertia is one of the major challenges when it comes to adopting or implementing KM practices in their respective organisations. Meanwhile, more than 30% of the surveyed organisations suggested that resistance to change among executive management is a key reason for the failure of KM practices adoption.

“Despite cultural changes, resistance remains an impediment to the implementation of KM practices for 42% of organisations. Not surprisingly, for 30% of organisations, middle management has been a group that has resisted the implementation of KM practices, and half this percentage consider that senior management or non-management employees have resisted the implementation of KM practices. The resistance from unions has been very limited (in less than 2% of organisations)” (OECD, 2003, p.24).

This highlights the challenge that public sector still faces at different levels of the organisation management structure. Hence, public sector organisations should look at to starting a top-bottom change strategy, starting with culture changes among top leaders in the public sector to list KM practices as a priority on their agenda. If public sector organisation senior executives are not considering KM practices as a priority, none of the operational managers will do so either, and the change resistance will remain an obstacle to driving successful adoption. The next section introduces one type of organisational inertia and how each type has a different impact on organisations.

3.5.1.1 Types of Inertia

According to Polites and Karahanna (2012), organisation inertia can be divided into three types, cognitive, behavioural and affective. The cognitive inertia referred to here is the situation whereby organisation management are aware that a better solution exists but they still prefer to use the old methods and maintain the status quo. The second type is behavioural inertia, which means that the organisation keeps using the existing practices and methods simply because this is what has always been used and done. The affective inertia type is referred to as emotional attachment and feelings related to the current practices and methods used inside the organisation. Hence, refusing the change to new methods will require learning new methods that might be stressful and require additional efforts.

Haag (2014) extended the proposed concepts of organisational inertia presented by Polites and Karahanna . Haag pointed out that inertia concepts can be found inside the organisations in five types not inclusive of the three mentioned earlier (cognitive, behavioural, socio-cognitive, economic and political). Political inertia refers to the existing impact or influence of a certain management vision or benefits to keep the current business practices and ignoring the organisational benefit. Instead, the economic inertia refers to resources rigidity. Finally, socio-cognitive inertia is seen as a result of internal organisational bureaucracy and norms

that hamper the change process inside organisations due to social relations among the organisation's individuals. The following table presents these types of inertia.

Tabl e31 Types of inertia, adapted from Rinter-Kahila et al. (2016)

Inertia type	Definition	References to earlier literature
Cognitive inertia	...although the organisation is aware that better alternatives exist.	Polites & Karahanna, 2012; Haag, 2014
Behavioural inertia	...out of habit, which is what the organisation has always done.	Polites & Karahanna, 2012; Haag, 2014
Affective inertia	...because detaching from it is perceived as stressful or unpleasant.	Polites & Karahanna, 2012
Socio-cognitive inertia	... because the norms and culture of the organisation inhibit change.	Besson & Rowe, 2012; Haag, 2014
Economic inertia	...because the organisation has insufficient resources to search a better alternative. Also, the current system might withhold too many sunk costs.	Gilbert, 2005; Besson & Rowe, 2012; Haag, 2014
Political inertia	...because organisation's external stakeholders require so.	DiMaggio & Powell 1983; Teo et al. 2006; Besson & Rowe, 2012; Haag, 2014

Moreover, the inertia type is different according to the organisation's sector; for example, in the public sector, change inertia tends to be higher than in the private sector. This is because public sector organisations have more constraints on decision-making authority, policies, laws and regulation. In addition, public sector organisation is a public services organisation that does not intend to profit. In the private sector, the organisations must be responsive to external environment changes, fast decision-making, and leadership must drive profit and maintain a sustainable growth. The change inertia in a private sector organisation means death (Boyne, 2002).

There are many differences between the public and private sector organisations in terms of ownership, political structure and purpose, which consequently impact upon change inertia., These differences are summarised in the table below.

Table 13 Differences between the public and private sector organisations

Public sector organisation	Private sector organisation
The public sector organisations are owned collectively by political communities (Perry & Rainey, 1988).	Owned by entrepreneurs and shareholders (Perry & Rainey, 1988).
Funded by taxes and by the governments (Walmsley & Zald, 1973).	Funded by shareholders or by customers revenues (Walmsley & Zald, 1973).
Controlled or influenced by the by government political forces, to achieve certain political goals (Dahl & Lindblom, 1953).	Controlled and influenced by the market condition and the economic system (Dahl & Lindblom, 1953).
Leadership in public sector are not rewarded on financial on their achievements, hence, this drive low efficiency (Clarkson, 1972).	More achievement means more monetary value rewards. Hence, managers are more efficient in driving change (Clarkson, 1972).
Managers obtain no direct financial benefits from higher organisational efficiency.	Better performance, means more benefits, since the manager may be the owner
Change is control by restricted laws, political parties, and central authority (Boyne, 2002).	More responsive and agile, change is driven by the financial performance (Boyne, 2002).

Change inertia in public sector organisations tends to be high due to the abovementioned factors. Some private sector organisations may have high change inertia depending on the sector field in which the organisation works. For example, in the oil and gas sector, a private organisation should adopt restricted regulations in terms of health and safety regulations. Another such example is private organisation working in the healthcare service, where they have to follow government regulations and procedures. Hence, organisational inertia may be high in the public sector but that does not mean it is non-existent in the private sector

Organisation inertia is attracting growing attention from the researchers and practitioners of organisational behaviour, due to its impact across all of an organisation's layers. I believe that there is still much to explore about organisational inertia, and inertia types can be further extended and refined. For example, none of the above researchers have investigated the impact of national culture on organisational inertia. In the context of the public sector, organisational inertia has always been seen as result of bureaucratic procedures and norms, which inhibits change inside those organisations.

The next section introduces one of the well-known public sector characteristics, known as organisational bureaucratic culture, which was originally promoted in order to drive quality and performance. However, bureaucratic culture has over time become a source of organisational inertia in the public sector.

3.5.2 *Bureaucratic Culture*

Bureaucratic culture stands for a list of regulations and procedures in place to control processes and work flows, usually in large public sector organisations. According to Claver et al. (1999) and Okafor (2005), bureaucratic culture may be defined where standard operating procedures prescribe the execution of all processes according to the formal division of authorities, organisational hierarchy and relationships. This means that the interpretation and execution of policies inside a bureaucratic culture organisation can lead to relatively long routines and much time is needed to carry out a task. This is the result of many interrelated policies and complex hierarchical structure of power, especially in public sector organisations. Handling one task may involve many processes. therefore, citizens view bureaucracy as a negative culture (Claver et al., 1999; Okafor, 2005). According to Harvey (1997), public sector bureaucratic culture role is to transmit organisation possessed values and cultural message by interacting with its customers.

Bureaucracy is classified into two types by Adler and Borys (1996): enabling and coercive bureaucracy. This typology is an outcome of the theory which sees the necessity to embed bureaucracy culture into organisational technology in order to enable the public sector employees to perform their task more efficiently. This is in terms of drawing a roadmap to guide and clarify the individuals' responsibilities in an organisation's "standard operating procedures". On the other hand, bureaucracy is seen as an innovation obstacle, which demotivates staff and fosters dissatisfaction, since they have to follow a certain predefined policy or procedure.

Bureaucratic culture is the main organisational culture of public sector organisations (Babura, 2003; Claver et al., 1999). In public sector organisations, bureaucratic culture includes other

cultural subsets, for instance, culture of power hierarchy “authority” (Teo et al., 2006), secrecy and confidentiality (Hansen et al., 1999; Riege & O’Keeffe, 2007), control and monitoring culture (Ban, 1995), conformity and standardised procedures (Feldman, 1985), and that of process (Deal & Kennedy, 1983). In addition to this is the chain of commands and processes of control, procedures and policies compliance that are shaping public sector culture (Boddy, 2006). This chain exists in form of organisational structure, defining the public sector employee’s roles, responsibilities and ranks, inside the organisation (Briggs, 2007). This culminates in a formal and structured way of carrying out tasks, which sets out rigid boundaries and lays down control measures and boundaries inside the public sector organisations which define organisational culture and require employees’ adherence to the overall organisational structure and hierarchy.

In this regard, Claver et al. (1999) maintain that bureaucratic culture is a general feature of public sector organisations. They go on to define a list of features which make public sector organisations inefficient, thereby supporting the coercive typology:

- the management style is authoritarian, with a high degree of control
- there is little communication and the management is usually a univocal, top down one
- individuals search for stability, have limited scope for initiative and are oriented towards obeying orders
- the decision-making process is repetitive and centralised
- there is a high degree of conformity
- these beliefs are highly reluctant to change

The public sector bureaucracy draws an absolute close-loop organisation, which demands a proper understanding of its culture and adequate consideration to its structured power of authority before exploring its effects on KM transfer and interaction among individuals. According to Riege and Lindsay (2006), organisational bureaucracy vests the ownership of knowledge more on the top management level, meaning that those at the operational level

(employees) are left out. In simple terms, the top management usually controls knowledge sharing in such a way as to enforce their position and sustain their authority, which leads to a reluctance to share knowledge on the part of those not in the top management hierarchy. Even when those operational level employees own the knowledge and initiative to transfer and share, these initiatives have to come from management. Hence, it makes the operational level employees in the hierarchy feel estranged and missing a sense of being a part of the organisation.

However, despite the above-mentioned negative nature of bureaucracy, Weber (1946) indicates that bureaucracy has positive characteristics if it has taken from the perspective as enabling typology. He noted that organisational bureaucracy develops a clear hierarchical structure, task division, formal rules and regulation that, if followed by the organisation's individuals, would drive efficiency. This theory was advanced by Savas (1982), who emphasised that these same characteristics drive the public sector organisations to be inefficient, inflexible and irresponsible before the citizens of the country which they are supposed to provide service for, in the sense that they slow down the process of service delivery.

Bureaucratic culture gives room to the emergence of sub-cultures in departments and units within a public sector organisation. These units begin to protect its interest, specific goals and language. So for any person who requires a service from the public sector organisation, the process will include inputs and approval from these departments and units as a matter of convention, not a necessity as the boss must be involved (Aluko & Adesopo, 2004). The process can take a long time to come through because public sector organisation officers have to recommend and send files up and down the hierarchy. This causes delays and renders worthless initiative and innovation of staff outside the management circle. A common decision that can be taken by a staff is made to go back and forth through the hierarchy, just to satisfy the bureaucratic setup. The same applies for knowledge transfer and sharing, which requires approval from top management hierarchy before disseminating or sharing any type

of knowledge, information or document at the lower level of the management hierarchy, which is considered a challenge for public sector KM initiatives success.

3.5.3 UAE Culture and its Influence on Public Sector KM

The organisational culture is difficult to identify and change since its characteristics are intangible and embedded in individuals' behaviour, surrounding environment and the organisational context (Jreisat, 1997). Others, such as King, argue that culture is one of the most challenging task for the knowledge organisations: “culture is one of the most challenging tasks in a knowledge-based firm. Culture is usually considered as a factor in the success of KM” (2009, p.311). Jain and Moreno points to importance of culture within organisations, and the importance of carrying out a deep analysis of many different variables related to the numerous culture factors and sources that may impact upon the organisations and its individuals: “National culture, subcultures, organisational culture and history all influence behaviour patterns of employees, structures, and processes found in organisations. The complexity of these patterns, structures, and processes requires careful analysis of many different variables” (2015, p.280).

Hofstede et al. (1990) point out that most researchers agree on organisational culture as the cornerstone for organisational functionality. Organisational culture tends to be unique to each organisation, because it is composed of different internal policies, procedures and strategy mixed with the external environment or society traditions, beliefs and norms, that all together influence individuals behaviours working in those organisations (Buono et al., 1985, p. 482).

Culture causes actions that are compatible with its values, and is reflected in the organisational policies, procedures and decision-making. In this regard, Boubaker et al. argue that organisations' governance structure is influenced by the surrounding society's culture due to the nature of organisations' interpersonal relations with external society:

“culture values constitutes a convention of common tastes for certain interpersonal relations and institutions, and as a result, may influence the choice of particular corporate governance structure. In long run, the content of corporate governance structure should be compatible with and partly reflects the prevailing cultural orientation in a society...” (2012, p.374).

Organisational culture implies certain behavioural changes among organisational individuals in response to the new norms, beliefs and processes. In another words they need to change their way of thinking and the way they are conducting their daily tasks, which may create a feeling of uncertainty of the unknown future due to this change.

Today more than ever, public sector organisations are facing tremendous pressure to adopt change in responding to rapid changes in the external environment. We are living a new age that is with power of knowledge, information, and data (Valle, 1999). However, change is not easy, especially in countries such as the UAE. Despite the UAE’s initiatives to drive change in its public administration bodies and to adopt the knowledge economy, the influence of the national culture, traditions and interpersonal relations still dominates public sector individuals’ values and norms, which makes the change process more difficult. All the leading studies about KM and culture were conducted in non-Arab countries and in the context of western culture organisations (Pauleen et al., 2007), which indicates a limited applicability in the Arab context. For example, Weir and Hutchings (2005) point to the importance of understanding the culture of an organisation before adopting knowledge practices. In this regard, Schein (2010), Pauleen et al. (2007) and De Long & Fahy (2000) argue that the national culture can deeply impact organisational culture as well as the way in which individuals process information and knowledge within organisations.

Moreover, as Abdulla et al. (2011) assert, UAE culture is mainly influenced by two factors: Islamic values and tribal traditions. Islam teaches Muslims that they are obliged to seek knowledge, acquire it and share with for the benefit of others and help other people to learn it, without expecting a reward in return (Kumar & Rose, 2012). However, in UAE business

environments, all business activities are conducted through personal connections and networking with society (Al-Adaileh, 2011). In addition, Weir and Hutchings (2006) point out that knowledge sharing and exchange in Arab culture is based on trust. Arab managers share their knowledge only with individuals that they already know and trust after having established long-running relationships in the work environment. In this regard, Skok and Tahir (2010) remind us that building and maintaining trustful relationships inside organisations takes time, hence its impacts upon KM practices such as informal knowledge sharing among peers. All the more so as Arabs are very social people who will always prefer interaction and to share knowledge in face to face meetings in order to build trust and relationships over time (Yasin & Yavas, 2007). In an empirical study on Arabic business culture, Skok and Tahir (2010) found that 97% of the Arab managers prefer verbal communication to electronic communication, 87% use peer-to-peer knowledge sharing, and 71% exchange knowledge in informal meeting with other peers. In addition, the study highlights that Arab culture greatly prioritises verbal communication, which negatively impacts upon knowledge practices because such communication is hard to capture and exchange properly. Davenport and Prusak (1998) point out that most of the managers get two-thirds of their knowledge interacting with others in meetings or phone conversations, and only one third of their knowledge comes from paper-based knowledge or documents. This could be considered as an advantage for sharing tacit knowledge, which requires a high level of interaction and trust between individuals (Al-Salti & Hackney, 2011).

The other, multi-faceted, factor that impacts Arab organisational culture is family, social relations and nepotism (Tlaiss & Kauser, 2011). Nepotism influences knowledge sharing through personal connections and social relations (Weir & Hutchings, 2006), and has a negative impact on KM practices inside the public sector organisation, where individuals tend to share knowledge only with their trusted social network with a view to endorsing their power of knowledge in the organisation (Tlaiss & Kauser, 2011). In addition, Anwar and Chaker (2003) noted that nepotism power is used often in Arab organisations to gain

promotions, or to obtain new ranking positions or jobs based on their tribal- or closed-circle and personal relationships regardless of their qualifications or skills. This may negatively influence employees' trust and impact their performance, which is reflected in the KM practices and the total organisation performance (Tlaiss & Kauser, 2011). A study by Hammoud (2011) of corporate Arab culture found that the national culture has a great influence over organisational culture. In addition, most of the business ventures in Arab countries are family-owned or -run, and their expansion involves hiring individuals from their family members, which again impacts upon organisational culture. Other studies such as that by Yeo and Gold (2014) recommend the management to focus on trust culture inside the Saudi Arabian organisations so as to empower KM practices.

The fact that many public sector organisations' employees are expatriates creates additional stress, because individuals perceive knowledge as power and thus avoid sharing knowledge with other employees, who may be local Emirates or other expatriates. Therefore, managers need to take action to prevent the culture of nepotism inside UAE public sector organisations and to improve knowledge exchange among organisations' employees to maintain the best KM practices.. The UAE public sector managers are the ones responsible for driving organisational cultural change, by giving more priority to UAE Vision 2021 and focus on changing their employees' mindsets by adopting a learning and development approach that focuses on the importance of organisational change and individual progression. This discussion highlights the impact of the national culture on UAE public organisational culture and its impact on the KM practices, due to existing bureaucracy in information flow and exchange among individuals. The national culture impacts organisations' employees in both the public and private sectors . Therefore, management needs to take into consideration national culture when they develop a KM practices strategy, and focus on changing the culture in their organisations so as to reduce change inertia.

3.6 Inertia in the UAE Public Sector

The UAE, like many governments around the globe, is working to improve their public sector organisation efficiency to better serve their citizens who are becoming more demanding for responsive and effective services. In today's knowledge economy, many public sector organisations found that KM practices adoption would be the solution for the growing challenges faced by the public sector organisations. According to the OECD (2003), knowledge is critical to measure public sector competitiveness in key tasks such as services delivery and policy development. Government are facing competition in these areas at both the national and international level. For instance, at the international level, governments and NGOs are in competition with foreign organisations delivering similar services, for example universities in competition with international research institutes to attract funding, researchers and investments in their knowledge services. However, to maintain a successful KM practices adoption, change is required at different organisational levels. Driving change in the Arab public sector organisations will not be an easy task to accomplish.

Despite the success rates in some change initiatives in public sector across the world, and the much publicised literature of change management frameworks and models to adopt the best practices in driving change and overcome inertia, it is still difficult to import a single success of one organisation to another. This is because every organisation has its own identity, value, norms and unique culture embedded within the interpersonal and cultural background of people and external society settings. In addition, most of the demonstrated success cases were achieved in western countries, which have a different culture, values and prescriptions from Arab cultures. Therefore, to be able to understand the UAE public sector change inertia, it is important to understand the factors that impact the change inside an public sector organisations from the Arab culture, and adapt it to the UAE context, since Arabs states bear much similarity in terms of language, culture, religion and shared history and characteristics that would make it far more logical to understand the challenges facing both Arab and UAE public sector originations when it comes to driving change at various organisational levels.

The following table summarises a list of 13 studies that focus on understating the factors that impact the change process inside different public sector organisation in Arab states. Rees and Althakhri point that their study generally concludes that the “arab world tends to be strongly group oriented, male-oriented and dominated by large power distance, strong uncertainty avoidance, and long term orientation. This is reflected in the tribal systems adopted by the majority of Arab societies. These cultural characteristics exert a great influence on management systems in general and organizational change in particular. In Arab societies, change is often considered as a threat and people prefer the status quo. Therefore, the successful implementation of change in Arab contexts requires strong support from senior management, especially those who have power position within the organizational structure” (2008, p.130).

Table 14 Factors impacting public sector organisational change in the Arab world, adapted from Rees and Althakhri (2008)

Source	Objective(s)	Research method	Conclusion
Alhalawni (1990)	To investigate managerial attitudes towards organisational development in Jordan	Questionnaire was used with a sample of 300 managers from all ministries and governmental institutions	The study found that: 1) change must be planned and implemented carefully in order to be successful, 2) change should not be based on personal objectives, 3) attention should be paid to motivation systems and negotiation with employees by informal channels in order to persuade employees to accept change, and 4) successful change should not be continuous, because permanent change might lead to the creation of a state of fear and suspicion among employees.
Abu-Hamdieh (1994)	To examine the impact of the participation of employees, the relationships between them and the availability of information on change processes	Questionnaire was used with 1,917 employees in 40 industrial companies in Jordan	The author reports that participation, good relations between employees at work and availability of information have a positive correlation with effective change processes, while age and the nature of the work have significant correlations with resistance to change. By contrast, sex, education and work experience were found to have no association with resistance to change.
Alzni (1994)	To examine the role of communications in organizational change	Questionnaire was used with 154 employees from the Cairo Saudi Bank	The findings highlight the need for effective communication between employees by providing them with adequate information about change in order to implement change successfully. Managers should increase confidence in their

Source	Objective(s)	Research method	Conclusion
			employees and encourage them to participate in change processes.
Alkadera & Alfawori (1994)	To investigate managerial attitudes towards organizational development in Jordan	Questionnaire was used with a sample of 300 managers from all ministries and governmental institutions	The findings show that a majority of the managers agreed that organisational development was a part of their task. Results also indicate that organisational development in Jordan was facing many challenges: recruitment was not based on employees' capabilities, the monitoring of the process of organisational development was poor, and there was a lack of sufficient power for those in charge of organisational development and of qualified specialists in aspects of management development.
Allozi (1999)	To examine employees' attitudes towards organizational change	Questionnaire was used with a sample of 603 employees from 23 public sector institutions in Jordan	The findings indicate that employees' participation in the change process is one of the most important factors in helping to implement change. The study found that change from an employee perspective is considered as a threat. On the other hand, managers tend to have more positive views of organisational change.

Source	Objective(s)	Research method	Conclusion
Alamri & Alfawsan (1997)	To examine the causes of resistance to change in the public sector in Saudi Arabia	Questionnaire was used with sample of 450 employees	The results indicate that employees resist change for several reasons. First, managers are concerned about losing their power while members of staff fear the loss of their jobs. Secondly, objectives and action plans for change processes are often unclear to employees. The authors consider that the most important factor leading employees to resist change is unclear channels of communication between employees and change agents.
Almuslimani (1999)	To examine the obstacles to organizational development in Jordan	Questionnaire survey	The study identifies specific obstacles to organizational development. They are: lack of financial support, centralization of authority, rigid procedures and regulations, and certain social values, including tribalism, family relationships and favouritism.
Alzuadat (1999)	To explore the role of training in situations where organizational change results in the creation of new jobs	Questionnaire survey was used with a sample of 370 employees from a commercial bank in Jordan	The study finds that training programmes should be given more attention, especially when a change requires new jobs in order to help employees to gain new capabilities and skills that are necessary for their new status. The study also reports that, in order to implement change successfully, employees should participate in decision-making.

Source	Objective(s)	Research method	Conclusion
Alomari (2000)	To identify a number of factors that impede change management in a telecommunication company in Saudi Arabia	Questionnaire was used on a sample of 350 employees	The study found that factors which impede change include: 1) poor planning and implementation of change, 2) a lack of human and material resources allocated to the change programme, 3) change objectives which are not clear to employees, 4) a lack of participation by employees in the change process, and 5) managers are anxious about losing their power and influence.
Alharbi (2002)	To examine resistance to change in public institutions in Saudi Arabia. Also to identify the relationships between resistance to change and demographic variables	Questionnaire was used on a sample of 348 employees	The study concludes that there are two main factors creating resistance to change: poor planning and management of change and the fact that managers have no confidence in their employees. The study shows that the demographic variables examined do indeed have a significant correlation with resistance to change.
Aldkasma (2002)	Investigates the factors influencing change in a government department in Jordan. Also	Questionnaire	The study found that improvement of organisational performance is the most important driver of organisational change and that among the various challenges faced by this change are: 1) poor participation by employees in the change process, 2) neglect of the monitoring of the process, 3) a failure to reinforce the

Source	Objective(s)	Research method	Conclusion
	examines the obstacles to such change		new status quo, and 4) a lack of financial and moral support.
Alazam (2002)	To investigate attitudes towards organizational development and change in a Jordanian communications company	Questionnaire was used on a sample of 160 managers	The result shows that external and internal environments must be analysed carefully before any decision is taken to initiate change. The author states that the organisation needs to adopt a flexible organisational structure and improve communication systems in order to implement change effectively.
Abdeh (2006)	To investigate the relationship between leadership styles and organizational development in different government ministries in Jordan	Questionnaire was used on a sample of 397 managers	The findings show that in order to improve organisational development in the Central Ministries, attention should be paid to delegating authority to staff, simplifying work procedures, reviewing legislation and regulations, and improving communication channels between managers and staff.

The UAE public sector is not different from other public sector organisations in Arab countries. UAE public sector organisations are facing challenges in driving change to adopt the KM practices internally. Those challenges are related to change inertia, which is the result of a society dominated by group culture, traditions, trust, and a lack of technical knowledge and personal relations. The following table summarises the main factors driving change inertia inside the UAE public sector organisations, and the factors extracted from both general and UAE-specific literature.

Table 15 Factors of change inertia in UAE public sector, adapted from Bin Taher, et al. (2015, p .325)

Reasons behind change resistance	Literature type (General / UAE Specific)
Organizational factors	General (Al-Khouri & Bal, 2007; Nedovic-Budic & Godschalk, 1996)
Lack of organizational maturity and Stability	UAE-specific (Al-Khouri & Bal, 2007; Yaseen & Okour, 2012)
Bureaucracy and traditions	General (Jurisch et al., 2012; Kudray & Kleiner, 1997) UAE-specific (Al-Yahya, 2009; Yaseen & Okour, 2012)
Lack of management commitment	General (Barley, 1990; Bensaou & Earl, 1998; Crowswell, 1991; Taher et al., 2012) UAE-specific (Al-Khouri and Bal, 2007; Al-Yahya, 2009; Badawy, 1980; Yaseen & Okour, 2012)
Poor communication	General (Al-Mashari & Zairi, 1999; Dixon et al., 1994; Fondas, 1993) UAE-specific (Al-Khouri & Bal, 2007; Yaseen & Okour, 2012)
Conflicting interpretations of how technology should be implemented and used	General (Barley, 1990; Bensaou & Earl, 1998; Crowswell, 1991) UAE-specific (Al-Khouri & Bal, 2007; Yaseen & Okour, 2012)
Individual factors	General (Dorthy & Kraus, 1985; Silva & Backhouse, 2003; Silva, 2007)
Fear of losing power	UAE-specific (Al-Yahya, 2009; Common, 2011; Hesson, 2007; Mimouni & Metcalfe, 2011; Peterson, 1977; Yaseen & Okour, 2012)
Lack of required technical knowledge	General (Bensaou & Earl, 1998; Pacific Council, April 2002) UAE-specific (Al-Khouri & Bal, 2007; Hesson, 2007)

Threatened job security	General (Hesson, 2007; Silva & Backhouse, 2003; Taher et al., 2012) UAE-specific (Al-Yahya, 2009; Hesson, 2007)
Lack of perceived personal benefits	General (Kudray & Kleiner, 1997; Taher et al., 2012) UAE-specific (Badawy, 1980; Darwish, 1998; Muna & Simmonds, 1980; Yaseen and Okour, 2012)

The literature shows an alignment with the previous table (the factors impacting upon public sector organisational change in the Arab world). Therefore, in order to drive change within the public sector, the public sector organisation managers must take into consideration those factors when they decide to drive new organisational change initiatives internally and to implement their organisational change from the operational levels to the managerial levels (bottom-up), and using their power and authority to reduce change inertia.

For example, the UAE public education sector decided in 2006 to adopt the best international standards for teaching in UAE public schools, by adopting the international educational practices in the national education context. Before starting the project, the government asked all the teachers to fill out a survey so as to measure their perception regarding the reform and change impact on their routines and traditional teaching practices.

This approach helped the UAE government to investigate the teacher's perspectives and estimate the possible risks during the change process. Had the government ignored teachers' perceptions regarding the education reform project, they would have faced a greater level of change inertia.

The change management is not a streamline process; it is a set of very complex tasks where managements need to consider a different set of factors before starting not only technical "change plans" but also behavioural ones, by analysing the complex interactions that may result during the change process. Managers must therefore understand their surrounding environment before embarking upon any change initiative.

3.7 Roles of Senior Leadership and KM

Miller (1990) has pointed out that organisational success can reinforce the tendency for managers to stick to their routines and activities, which may not be successful in new contexts. Alfred Chandler (1962) has also highlighted that one of the important sources of inertia inside organisations is managers who stick to daily routines to keep the organisation going.

The above arguments state that managers' and senior executives' competencies and skills play important roles in changing organisational inertia and leading change from within the organisation. Competent and skilled senior executives are able to influence individuals in several ways. Executives are able to encourage individuals to change, collaborate and overcome organisational inertia and drive innovation through knowledge practice adoption. The senior executives should exist in all the organisation levels, regardless of size or sector. They should enjoy power, authority and charisma to lead change and learning inside their organisations through culture, strategy and structure (Mahoney, 2000). The organisations gain value through their leadership visions, and ability to create a disruptive product, services or even by revamping organisational structure and strategy that facilitates innovation and organisational learning and overcomes organisational bureaucratic inertia (Anumba et al., 2007).

Researchers such as Scharmer (2001) charged with the responsibility of every challenge facing the organisation, have asked the organisation leaders to be visionaries "to oversee the emerging opportunities before they become manifest in the marketplace" (2001, p.?) Baines (1997) has stressed the role and the responsibility of organisations' leaders for driving organisational learning and knowledge transformation. Both researchers see that leaders have a crucial role in developing and maintaining an organisational culture of innovation, learning, knowledge transformations and to overcome what is called organisational change inertia.

Stonehouse and Pemberton (1999) assert that organisations leaders and senior executives ought to give a high value to knowledge, to promote knowledge practices adoption, to

encourage innovation culture through questioning and experimentation, to empower individuals to think out of the box, and to build and promote trust and learning culture among knowledge workers.

Bollinger and Smith (2001) have proposed that the organisations' leaders and senior executives focus on:

- Developing and enforcing a culture which appreciates knowledge practices adoption, from knowledge sharing, deployment, to acquisition, and which retains the organisation's individuals and promotes trust amongst one another to share knowledge and drive innovation
- Ensures that all individuals in supervisory positions are well-trained, empowered and supported to promote the organisations' desired culture
- Building and maintaining a proper knowledge infrastructure at all organisational levels including information technology, knowledge workers, sharing and collaborations tools of knowledge

Changing organisational inertia means that an organisation will change its routines, for example, adopting new organisational development practices, developing new routines or knowledge practices adoption. The key to a successful transformation and change of an organisation's inertia requires powerful leadership competencies and skills to lead this change (Ramberg & Wasserman, 2000). Ramberg & Wasserman points out that leaders at all the organisational levels of executives, management and operation positions should be involved in driving a plan of change to guarantee success, otherwise it will simply turn out to be another fad.

The question we should ask is how to identify a successful leader with the appropriate characteristics to lead change within an organisation? McGregor (1988) answers this question by identifying four major factors that impact leaders with the organisation's individuals to drive change:

- the leader's traits and characteristics
- the leaders' beliefs, feelings, values and other traits of the followers
- the organisation type and sector, such as its objectives, structures, mission, and tasks to be performed
- the organisation's surrounding environment includes social, economic and political

McGregor concludes that leadership is not only represented only by an individual, but is a complex relationship between these four factors, which altogether represents the leadership that will drive change within organisations. Also, Davenport and Prusak (1998) lend support to McGregor by presenting us a list of recommendations for organisation leadership to successfully manage knowledge management initiatives and practices:

- give high importance to knowledge and learning in an organisation
- build, maintain and develop the organisation learning infrastructure
- build, maintain and develop relationships with external knowledge sources
- think out of the box and revamp the organisation knowledge creation processes
- design and develop a knowledge management strategy
- control and measure the organisation knowledge value
- maintain your organisation's knowledge workers and knowledge manager
- design a learning organisation strategy to utilise your knowledge resources and drive performance

Other researchers such as Lang also point to the crucial role of individuals' relationship with each other in adopting knowledge management practices in their organisations. Lang wrote that “the real task of knowledge management is to connect people to people to enable them to share what expertise and knowledge they have at the moment” (2001); he sees knowledge management as communication channels among individuals in an organisation.

However, we believe that this depends on the level of trust and culture in an organisation, which was noted by earlier by Hitt (1995) who identified the role and the need for leaders to

empower an organisation's individuals to develop a common vision and culture, build trust and delegate authority, and to question and experiment, all of which will contribute to the organisation knowledge resources and learning experience.

Finally, Politis (2001) went further in his analysis of the relationship between different styles of leadership self-management, transformational, transactional and a number of knowledge management practices. Politis points out that style of leadership has a relationship with and impact on knowledge management practices. In his study, he concludes that the participative and self-management leadership style are more related and impact the knowledge worker's behaviours and traits, and this impacts the level of the knowledge sharing, collaboration and acquisition. Politis believes that the participative and self-management leadership style is the most appropriate leadership style that is aware of the knowledge crucial role and gives more attention to organisations' knowledge strategy to drive efficiency, performance, and build and sustain the competitive position with the correct empowerment of followers.

The following sub-section presents different styles of leadership, leadership traits and the importance of leaders' commitment to knowledge management practices adoption.

3.7.1 Leadership Types

Leadership is a concept that cannot be confined to one scientific definition, as Bennis (2007) asserts that there is currently no clear definition of leadership. It is thus an abstract phenomenon, with every person free to define it in his or her own unique way, while still defining it entirely correctly. Consequently, leadership is a wide concept that can embrace multiple meanings. The section below presents an overview of leadership conceptualisation:

3.7.1.1 The Transactional Leadership

Leadership styles have been anticipated to be transactional. Avolio and Bass (1990) mention that transactional leadership is an agreement between leaders and followers, thus rewards and punishments are used to control the process of leading. In summary, the transactional leadership style focused on vision, the prevalence of charisma, respect and trust. Davidson

and Griffin (2003) characterise transactional behaviour as the basis for maintaining association in the work environment by addressing individuals' requirements. For example, a transactional style of leadership focuses on sustaining the stability of an organisation in all circumstances. The main shortcoming of the transactional leader is that initiative and creativity in the leading process are not taken into account.

3.7.1.2 The Transformational Leadership

The transformational theory became dominant in the study of leadership behaviours, and continues to be. According to Burns (1978), transformational leadership emerges when the leader and the subordinates help each other achieve their goals. One of the positive advantages of this form of leadership is that it brings about the idea of motivation at the workplace. Bass (1990) argues that transformational leadership theory allows leaders to give their subordinates an opportunity to pursue their interests for the benefit of the whole group. The leader also focuses on the long-term interests of the members of the group, as they would benefit the group in the long-term rather than one's short-term interests. Finally, the transformational leadership theory holds that the establishment of a trustworthy relationship between the leader and the subjects is a key attribute to the effectiveness of leadership. Some of the elements of this form of leadership include intellectual stimulation, personal consideration and charisma.

3.7.1.3 Passive-avoidant Leadership style

Passive-avoidant leadership style has two components of leadership process. The first element is management by exception, which demonstrates that the leader takes a corrective action when a problem occurs in the organisation. The second element of this style of leadership is focusing on observing task execution in order to prevent any complication and to sustain the high-performance levels in the organisation (Bass & Avolio, 1990).

3.7.1.4 Laissez-faire Leadership Styles

This type of leadership style is derived from the French language in which “laissez-faire” refers to “let do”, whereby the leader gives subordinates the authority to act on their own. In this situation, followers have control over their work process, but the studies indicate that this type of leadership results on a low level of productivity. Such a leadership style is suitable for the type of organisation where team members do not require significant supervision or instruction (Bass & Avolio, 1990).

All in all, transformational leadership style stresses that the followers’ rewards are based on whether they meet their goals, while the transactional leadership style is focused on vision, the prevalence of charisma, respect and trust. It is the concept of focusing on softer factors like that of transformational leadership style, from which the idea of ‘emotional intelligence’ emerged in the late 1990s. Emotional intelligence places much emphasis on self-management and interaction management. The next section demonstrates the new school of leadership – “Competencies School” – and how it is defined.

3.7.2 Executives Leadership Competencies

O’Toole (2001) suggests that leadership development answers the question as to ‘what competencies do we need to develop in our organisation?’ and also provides a solution to the following question: “what competencies do we need to develop in a leader?” The following section defines competencies and outlines how the theoretical aspects of leadership competencies have emerged.

Competency is a broad term that refers to an individual’s characteristic that can result in superior performance (Goleman et al., 2013). In some cases, the existence of this characteristic may not be known by the individuals. According to the view of Jacobs and McClelland (1994), the competence characteristic of a person is related in some way to an effective or superior performance in workplace situations. Bock et al. (2005) further define competency as a customised set of behaviours, skills and attitudes that can be used to predict or distinguish the performance of an employee within a business.

For further illustration, there is a difference between competencies and competence. This is because competencies describe a person's behaviour and the fact that those behaviours would later be linked to the dominant performance in undertaking the task (Boyatzis, 1998). On the other hand, the ability to undertake a task at the level that is agreed upon is referred to as competence (Fletcher, 1991). In most instances, competencies are defined as behaviours and outcomes. Horton noted that "the simplest way, perhaps to describe the difference is: competencies are the people who do the work while competence is about the work and its achievement" (2002, p.4). In addition, competencies are considered a profiling tool. They present the platform of intentional behaviours portrayed by an individual which can be ascribed to the same people serving the same roles. Dulewicz and Higgs (2005) define leadership competencies as a group of behaviour, knowledge, skills and potentials required by an individual so as to positively influence an organisation from a leadership position. Snape and Spencer submitted that "competencies were patterns of thinking, which underscore behaviours and create long-term impact" (1993, p.17). Bjorkman and Stahl further reiterate that they are "a set of common personal characteristics to be found in leaders, which are needed for outstanding performance" (2006, p.60).

Depending on the content, competencies can fall into three broad categories: people-related, task-related and self-related (Analoui et al., 2000). Essentially, these categories encompass most of the activities that leaders undertake on daily basis. In a typical day, for instance, leaders deal with a range of tasks that include ensuring that the followers are able to handle their tasks and manage themselves (Riggio et al., 2003). Effective leaders are therefore leaders who have made significant contributions towards the effectiveness of the teams they lead. As a result, they are seen as good leaders by their followers (ibid). Thus, the researcher will measure leaders' effectiveness through the relationship between the leader and the followers. Bolden and Gosling (2006) conducted a study and established a relationship between competencies and conformity. It became apparent that the competency approach had four major flaws:

- competency creates a framework that helps to compare and regulate a leader's behaviour
- there is a need to translate competencies from strategy to the individual leader, in addition to the fact that the framework could conceal assumptions, priorities and goals that pass unquestioned
- frameworks propose a recommendation for further improvement that self-fulfils the importance of the framework itself
- the competency framework submits the importance of motivation of leader transitions from a human resource function to the leaders' supervisor

Research has shown that competency frameworks are important guides when it comes to defining skills and behaviours. In the event of increased focus on the framework itself, some of the most important features of what entails individual characteristics could be missed. Competencies are considered a convention of current human resource development coupled with numerous theoretical and practical influences. According to Rodkin (2011), competencies help in identifying high-potential candidates. They are also development tools for present-day employees. A correlation can be established between application of competencies and personal characteristics needed to achieve a particular task (Dubois, 1993; Lucia & Lepsigner, 1999). Competencies are also a useful tool as far as identification and implementation of core leadership skills is concerned. The ability to identify leadership competencies acts as a foundation for the development of knowledge of what effective and effective leaders should be like. In fact, identification of leadership competencies is the first step in the process of selecting and developing future leaders to lead organisational change in the public sector organisation.

3.7.3 The Importance of Leadership Commitment to KM

Obviously, the commitment of an organisation leadership toward all areas of KM is a must. All organisations must at least have one champion of knowledge creation in leadership position (Gamble & Blackwell, 2001). To be able to promote KM practices inside

organisations senior executives most think differently about their organisational activities, roles, and who they would lead change toward a knowledge based organisation. Bollinger and Smith (2001) points to the importance of the senior executive's role in driving this change through develop clear visions, building trust, encouragement, and involve the organisations individuals in driving change. Senior executives are an organisational responsibility. They are in charge of developing the organisation KM strategies and set the norms for the flow of knowledge and information inside the organisations to ensure that all strategic decisions are change requirements toward the organisation goals. For instance, Marshall and Sapsed (2000) have observed that knowledge is resides in the heads of senior managers who have gained through long years of experiences, and the privilege of have access to various sources of information due to their role authority in the organisations, many of these managers see “knowledge as power” and they are not willing to share it with other junior employees, hence, senior executives have a great challenges in driving change internally and promoting a new culture based on trust, and organisation loyalty.

Another aspect that requires the management commitment is the external knowledge. Bailey and Clarke (2000) recommend that for senior executives to drive value they need to leverage the importance of external knowledge that other stakeholder may own, e.g. customers, partners, and suppliers, and foster the importance of external knowledge in adding value in the organisation. This is can be achieved by clearly communicate what is the organisation future objectives, and what is critically important to organisation success. Therefore, senior executives should switch their role from managing to leading by using their organisational power, and authority to lead change through KM practices toward what is critically important for the organisation. In this regard, Kridan and Goulding (2006) stress on the senior executive's role in driving and sustain commitment toward the organisation KM practices, they point to the senior executives motivations to lead and drive the organisational resource to create favourable conditions for KM practices by changing the culture in the organisation.

They further highlight that senior executives need to have a clear vision on how the KM can contribute with value to the organisation success.

3.7.4 Leadership Styles and Leadership Skills

Leadership styles refer to the way that leaders lead their organisations' teams; therefore, there has been a tendency for organisations' individuals to think that the more senior the leader is, the more skills they need to have. For example, a junior manager might be good at communication or time management, but as they move into more senior leadership roles or to a new organisation that might differ in context and management style, they must improve and develop their skills in order to be a great and charismatic communicator and influencer with high motivational skills. The lists of the required skills get longer and longer as per the job position and the leadership role.

Senior executives and leaders, no matter how gifted, usually join organisations on some form of probation. Hence, they lack the required concepts that support them in understanding the organisational environment, work and culture, as well as the leadership role and skills needed to lead others. Therefore, leaders in this phase tend to focus on solving structured problems in the organisation using their technical and social skills from previous educational or work experiences (Podsakoff et al, 1996). During this period, those leaders concentrate on better understanding routines, regulations, norms and the guiding vision of the organisation. This gives leaders the opportunity to better understand the organisation and their place in it.

Leaders should be able to solve complex problems and develop novel solutions based on their knowledge, skills and leadership competencies (Conger & Kanungo, 1988). To do so, leaders must gain new knowledge and acquire new skills by learning from experienced senior leaders and other teams' members as well as learning from the organisation's knowledge.

Leadership styles, whether transformational, transactional or laissez-faire, are all power-centred, and this power comes from the leaders' vision, charisma, emotional intelligence, influence, wisdom and many other characteristics. These characteristics are enhanced and expanded by the leader's ability to learn, share, collaborate, partner and document knowledge

practices for an organisation. The leadership's style plays an important role in driving an organisation. However, leaders' skills and competencies are what recognise them as hallmarks of knowledge management and wisdom from others.

4 CONCEPTUAL FRAMEWORK

The literature review of the relationship between KM practices adoption in public sector organisations, organisational change inertia, the role of both senior executive's capabilities

and skills, and organisational culture was presented in previous chapters along with the research questions and propositions.

In this chapter, the conceptual model is established in order to examine the propositions' relationships. In addition, the conceptual model represents the research problem and research questions presented above.

Following the literature review chapter, this thesis is based on a research gap that can be summarised as the difficulty of KM practice adoption inside UAE public sector organisations due to organisational inertia. However, the researcher believes that organisations could overcome those difficulties and moderate it with proper organisational culture and proper senior executives' capabilities and skills integration.

Based on the work presented in chapters one and two, the purpose of this chapter is to construct the appropriate research design needed for the study. To better understand the relationship between KM practices, organisation inertia, senior executives' capabilities and organisational culture, a new conceptual model was developed.

4.1 The Conceptual Framework Components

The research conceptual framework presents a graphical illustration of the four components in a sequence of their relationship and impact on each other. The proposed framework aims to provide an explanation of the KM adoption practices inside public sector organisations, and how those practices are moderated by both organisational culture and senior executives' capabilities and skills to overcome public sector organisation change inertia.

According to Heisig (2009), the research frameworks are classified into three type of frameworks: prescriptive, descriptive and hybrid.

A prescriptive framework provide us with the direction of a certain phenomenon, without providing details of how certain phenomenon was established in the first place; for instance, in our study a prescriptive framework highlights the direction of KM practices adoption in

the UAE public organisations, without providing further information on what impacts those practices.

Instead, the descriptive frameworks describe the phenomenon's attributes and how these attributes are impacted upon by other environmental factors. , For example, using a descriptive framework in our study will allow us to understand what would impact a successful or unsuccessful initiative of KM practices adoption in UAE public organisations.

The last type of research framework is the hybrid framework, which is basically a combination of both prescriptive and descriptive style of frameworks.

Since this research intends to understand and describe how the KM practices adoption is impacted upon by organisational change inertia, and how this relation is moderated by organisational culture and senior executives' skills and capabilities, the researcher selected the descriptive research framework This research framework will help in examining the possible relationships while addressing the research questions with wider benefit to the context of study. For example, exploring the relationship of the KM practices adoption in public sector organisations with organisational inertia and other constructs' relationships with organisational culture and senior executives' skills would reflect towards an organisational ability to learn and innovate (Davenport & Prusak, 1998).

The research objectives are to explore the impact of organisational inertia on KM practice adoption in a public sector setting. The study also explores the role of both organisational culture and senior executives' skills and capabilities roles in reducing the organisational inertia impact on KM practice adoption. A qualitative empirical study will be carried out by the researcher to ensure the validity and reliability of the research results. According to Sprague and Zimmerman (1989), a research framework should be comprehensive and adapt appropriate definitions of the dependent and independent variables. In this study, the researcher has defined organisational change inertia as an independent variable, KM practice adoption as a dependent variable and organisational culture and senior executives' skills and capabilities as two moderating variables

Conceptual Model Propositions and Research Questions

In this section, the components of the conceptual model are presented in reference to the work carried out in the literature review chapter, which has pointed to how organisational inertia negatively impacts upon the KM practices adoption inside public sector organisations. Moreover, the literature also indicates the key role of organisational culture in fostering change and adoption change. This is followed by a highlighting of the importance of organisations' leadership role in driving this change by utilising their skills competencies, and commitments. However, those variables were discussed and explored separate to each other, and no study has been located in the literature which discusses the relationships between these variables in public sector settings. Hence, this research will empirically investigate the nature of the relationship between change inertia and KM practices adoption. Furthermore, it will examine if organisational culture and senior executive's skills and capabilities have a moderating impact on this relationship. This may indicate new opportunities and insights that have not been raised by other researchers. The researcher carried out this empirical study on the UAE public sector. Kumar (1996) points out that the main approach to developing a research problem consists of identifying the research concepts, and hypotheses from literature and previous studies. Researchers have recognised the relationship between organisational change inertia and KM practices adoptions, KM and culture, leadership and KM in separate settings (Roy et al., 2012; López-Nicolas et al., 2011; Zhang et al., 2010). However, none of the previous studies has investigated the relationships between those factors in a holistic model that would examine the relationships and the influence of all variables on each other. Hence, this study explores the relationship among all the mentioned variables in the UAE public sector context.

Therefore, the research will present, in the conceptual model discussed here, the major factors that influence the public sector organisations practices of KM adaption success.

Researchers have pointed to the important roles of cultural change readiness in fostering efficient KM implementation and adoptions (Taylor & de Loë , 2012; Rusly et al., 2012). Studies of public sector performance have mainly focused on developing performance measurements tools and business performance analysis tools, rather than spotting the required organisational practices that would support and enable public sector organisations in to drive efficiency (Choi & Chandler, 2015; Fernandez & Miles, 2006; Aranda and Fernandez, 2002). In this regard Teece (2000) points out that public sector organisations need to understand the processes of KM practices and its surrounding environment in order to drive value. In his opinion, KM practices adoption is more than a process of transforming data into information. Teece stresses that KM practices require greater efforts at different organisational levels, starting with a serious management commitment toward adopting these practices, fostering a change of culture, promoting trust, investing in technology, developing rewards and motivating individuals to adopt KM practices (Taylor de Loë, 2012; Rusly et al., 2012; Teece, 2000).

In this regard, Akdere (2009) also argues for the importance of understanding the relationships among KM practices adoption and the organisation future development plans inside the public sector organisations. This is because KM will support these organisations in developing realistic future strategic plans. Hence, taking into consideration the role of KM practices in driving and fostering the public sector's responsiveness to the external environments, the researcher carried out a literature analysis and review of potential challenges faced when adopting KM and its applicable practices in the public sector organisations context.

Today, global environment and markets are changing rapidly and organisations need to be flexible and agile in adapting those changes. There is rising competitive pressure from the private sector across a wide range of sectors such as education, security, health and transportation sectors. Similarly, there is a growing demand from citizens for the government to upscale the offered services in line with the services offered by the private sector (OECD,

2003). However, public sector organisations suffer from bureaucracy, management capabilities, internal power and politics, which precludes organisational change (ibid).

Thus, an organisation's inability to adapt in response to the new environment makes it vulnerable. For example, start-ups and new market entrants may be more successful in responding to market changes as compared to their well-established competitors (Teece, 2000). Management capabilities also play an important role in driving change inside an organisation, achieved through information technology, process rationalisation and, most importantly, promoting the proper culture of sharing knowledge, trust, and innovation (OECD, 2003).

Hence, the researcher arrives at the following proposition:

P1: There is a negative relationship between organisation change inertia and KM practices adoption in a public sector organisation.

Prior studies have emphasised the importance of KM practices adoption inside public sector organisations. Despite the importance of KM practices adoption in the delivery of value and high performance, public sector bureaucracy draws an absolute close-loop organisation. This demands a proper understanding of public sector organisational culture and a structured power of authority before exploring the effect of organisational culture on KM transfer and interactions among individuals. According to O'Sullivan (2007), Riege and Lindsay (2006) organisational bureaucracy vests the ownership of knowledge more on the top management level rather than at the operational level (i.e. employees). In simple terms, the top management usually controls knowledge sharing to enforce their positions and sustain their authorities, which leads to a reluctance to share knowledge on the part of those not in the top management hierarchy.

Bureaucratic culture gives room to the emergence of sub-cultures in departments and units within a public sector organisation. These units begin to protect its interests, specific goals and language. Thus, for any person who needs a service from a public sector organisation, the

process will include inputs and approval from these departments and units as a matter of convention, not as a necessity since the boss must be involved (Aluko & Adesopo, 2004).

The process can take time to come through because public sector organisation officers have to recommend and send files up and down the hierarchy. This causes delays and renders worthless initiatives and innovation from staff outside the management circle. A common decision taken by a staff is to go back and forth the hierarchy, this just to satisfy the bureaucratic setup (Willem & Buelens, 2007; Cong & Pandya, 2003). Similarly, knowledge transfers and sharing require approval from top management hierarchy, whereby dissemination or sharing of any knowledge, information or documents at the lower level of the management hierarchy will require senior management approval (ibid). The public sector bureaucracy shapes organisational inertia facing any change on the level of the organisation's development practices, such as KM adoption practices.

Miller (1990), points out that organisations' success can reinforce the tendency for managers to stick to their routines and activities which may not be successful in new contexts. Chandler argues that when senior executives reject a change and sticking with traditional and routines processes, they are fostering the organisational inertia weakening the transformation of organisational culture. Hence, senior executives' flexibility in KM adoption change is crucial to driving change and reducing public sector organisational inertia. Leading change in public sector organisations requires competent and skilled senior executives' in addition to the proper leadership traits. A successful leadership role would encourage individuals to overcome organisations inertia and drive innovation by adopting the best KM practices (1962, p.962).

Furthermore, organisations, regardless of their size or sector, have senior executives who are enjoying power and authority. These executives are crucial in leading change and enabling learning inside their organisations through a supportive culture, strategy and structure (Mahoney, 2000). Organisations benefit from their leadership's vision, ability to create disruptive products/services and capability to revamp organisational structure and strategy so

that these changes facilitate innovation and organisational learning and overcome bureaucratic inertia (Anumba et al., 2007). Roles and responsibilities of leaders lend support to some claims in the literature, for instance, Scharmer (2001), who calls on leaders to be visionaries and “to oversee the emerging opportunities before they become manifest in the marketplace” (p.137). Baines (1997) stresses the role and responsibility of the organisations' leaders in driving organisational learning and knowledge transformation. Stonehouse and Pemberton (1999) argue that leaders and senior executives should place high value on knowledge, promote knowledge practices adoption, encourage innovation culture through questioning, and experimentation, empower organisations individuals to think out of the box, and promote trust and a culture of learning among knowledge workers.

Bollinger and Smith (2001) have proposed that organisations' leaders and senior executives focus on:

- developing and enforcing a culture which appreciates knowledge practices adoption, from knowledge sharing to deployment and acquisition, and which retains the organisation' individuals and promotes trust among one other to share knowledge and drive innovation
- making sure that all individuals in supervisory positions are well trained, empowered and supported to promote the organisations' desired culture
- building and maintaining a proper knowledge infrastructure at all organisational levels including information technology, knowledge workers, sharing and collaboration tools of knowledge.

Thus, leaders have a crucial role in developing and maintaining an organisational culture of innovation, learning, knowledge transformations, and in devising strategies that overcome organisational inertia. Overcoming inertia means that an organisation will change its routines, for instance adapting new development practices, developing new routines or knowledge practices adoption. The key to a successful transformation which overcomes an organisation's

inertia requires powerful leadership competencies and skills to lead this change (Ramberg & Wasserman, 2000).

The researcher's second proposition is that:

P2L Skills and capabilities of senior executives in the public sector organisations impact the relationship between organisational change inertia and KM practices adoption in public sector organisations.

Organisational performance is built through collaborations, teamwork and knowledge exchange between the employees. The culture of proper adoption of KM practices is a vital source of organisational efficiency, especially with growing competitions between public and private sectors. Despite the growing interest of public sector organisations, in KM and KM practices adoption, many initiatives fail due to culture.

Organisational culture consists of intangible and unseen characteristics that impact upon an organisation's social relations, individualise behaviours, and also upon the way of doing business inside an organisation which is hard to define (Jreisat, 1997). Despite this difficulty, researchers have agreed that the organisation culture defines the functioning of an organisation. For instance, Hofstede et al. (1990) defined organisational culture as a socially constructed concept, with historical heritages that are difficult to change. Buono et al. defined it in the same perspective: "Organizational culture tends to be unique to a particular organization, composed of an objective and subjective dimension, and concerned with tradition and the nature of shared beliefs and expectations about organizational life. It is a powerful determinant of individual and group behavior. Organizational culture affects practically all aspects of organizational life from the way in which people interact with each other, perform their work and dress, to the types of decisions made in a firm, its organizational policies and procedures, and strategy considerations" (1985, p. 482). In addition, Gordon proposes that "...culture formation is neither a random event nor an action dependent solely on the personalities of founders or current leaders, but it is, to a significant degree, an internal reaction to external imperatives" (1991, p. 404). He thus finds that

organisational culture is a process of adapting to the existing organisation environment which, as a result, resists new change.

However, culture determines how people perform their work or interact with others, and also the degree to which change is adopting. Hence, it is important to any organisation to develop an agile culture that accepts change and is responsive to ensuring efficiency and effectiveness. Developing a knowledge culture will support organisations to adopt change faster through a continuous learning cycle based on the organisation knowledge captured and codified (Whiteoak & Mohamed, 2015; Gruman & Saks 2011; Sveiby, 1997). As mentioned in the literature review chapter, organisation' individuals are the main internal source of knowledge and "know-how", which contributes continuously to the organisation knowledge base. Therefore, employees' involvement in KM practices has become a major point of interest for organisations looking to deliver value (Vestal, 2012; Ardichvili et al., 2006). In this regard, researchers have pointed to the importance of fostering a culture of knowledge among organisations' individuals (Akhavan et al., 2013; Tan, 2015; Bock et al., 2005). However, driving culture change is difficult and requires leadership support and involvement. Schraeder et al. argue that "public sector leaders within an organization can have a profound impact on the willingness of employees to support or resist cultural change" (2005, p.501). They also point to the impact of an organisation's leadership in driving change against organisational inertia and in influencing individuals to adopt the new changes.

Prior studies have shown that changing culture is a difficult process and may take a long time, and they suggest that leaders drive change by setting economic incentives (e.g. rewards) and impacting social variables (e.g. motivation of employees). Therefore, positive employee behaviour will enable knowledge sharing culture within the organisation (Akhavan et al., 2013; Tan, 2015; Soley & Pandya, 2003; Carmeli et al., 2011).

Researchers have further identified a set of variables that influence the organisation by either enabling or inhibiting knowledge sharing (Yoo & Torrey, 2002). Constructs such as trust (Dulayami & Robinson; Ding et al., 2015; Ritala et al., 2015), anticipated reciprocal

relationships (Chen and Fong, 2015; Pee & Kankanhalli, 2015; Goh et al., 2015), identification (Tong et al., 2015; Mueller, 2014; Seba et al., 2012;), image (Wasko & Faraj, 2005), organisational rewards (Chen and Hew, 2015; Pee & Kankanhalli, 2015), knowledge self-efficacy (Tangaraja et al., 2015; Van Acker et al., 2015) and loss of knowledge power (Davenport & Prusak, 1998) have been identified as variables influencing employees to engage in knowledge sharing.

This study then proposes the following proposition to be explored:

P3. Organisational culture of public sector organisations impacts the relationship between organisation change inertia and KM practices adoption in public sector organisations.

Having discussed the potential relationship between organisational change inertia and KM practices adoption in the public sector organisations, one cannot ignore the important role that organisation culture plays in delivering a successful implementation of those practices. Berce (2003) points to organisational culture as the main factor in building a knowledge-based public sector. Taylor and Wright (2004) noticed that organisational culture is an important driver for successful knowledge sharing in the public sector. Abass et al. (2011) found that public sector organisations' performance is directly related to KM practices inside an organisation. Al-Adaileh and Al-Atawi (2011) suggest that KM theories applied in different cultural settings might not be useful due to cultural differences that reinforce certain organisational dimensions. Skok and Tahir (2010) note how individuals could be the largest barriers of KM within public sector organisations.

Kumar and Kumar (2010) indicate that knowledge sharing impacts upon the KM and enrich efficiency in public sector organisations. Shehabat and Mahdi (2009) addressed the potential of using human knowledge to provide efficiency in public sector organisation. Hussain and Wahba (2002) promote the significance of a knowledge sharing culture and focus more on the role of human beings than on technology to drive performance in public sector organisations.

Finally, researchers have argued for the role of KM in driving performance, competence and innovation in the public sector, taking into consideration the unique context and culture of those organisations.

However, none of these researchers have presented how organisational culture can be used to minimise the change inertia toward KM adoption practices in public sector organisations.

4.1.2 The Conceptual Model

The conceptual model represents the relationship between the four components mentioned above – KM practices adoption, organisational change inertia, senior executives' skills and capabilities and organisational culture – and presents an explanation about the relationship between these components based on the literature review and the body of knowledge presented in chapter two. The conceptual model aims to drive the research towards establishing the relationships between these components, and explains the dependent, independent and moderated variables. Hence, the proposed model presents the connection and influence of change inertia over KM practices adoption in public sector organisations, and how this relationship is moderated and influenced by the skills and the capabilities of senior executives and organisational culture. Figure 2 shows the conceptual model developed by the researcher based on the above-mentioned propositions.

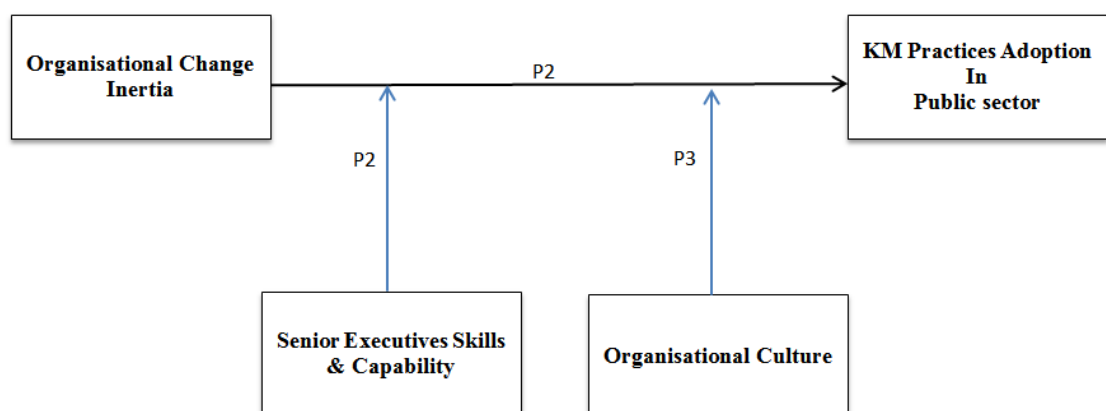


Figure 2 The study conceptual model and related constraints

The primary research focus is to understand how organisational change inertia influences KM practices adoption in the setting of UAE public sector organisations. Further, the research examines the role of organisational culture and senior executives' skills and capabilities in moderating the impact of change inertia on KM practices adoption. Thus, the first research question (RQ1) and second research question (RQ2) are:

(RQ1),

How does change inertia impact KM practices adoption in the UAE public sector settings?

(RQ2),

What role does Organisational culture, and senior executives Skills and capability of senior executives play in driving KM practices adoption and overcoming organisational change inertia in the UAE public sector context.

Proposition 1 (P1) will answer RQ1, while Propositions 2 and 3 (P2 and P3) will answer RQ2.

Finally, answering the research questions will support public sector organisations' management in illuminating the lack of clarity around KM best practices adoption, and show how to utilise organisational culture and senior executives' skills and capabilities to face down the challenges of organisational change inertia.

4.2 Summary

This study consists of an exploratory research, where the propositions and research questions were developed based on the gaps in the literature discussed and the extensive analysis of the concepts of KM and public sector organisations.

The review of the literature has demonstrated that organisational inertia is widely held to be a major barrier to creating and sharing knowledge. Furthermore, since organisational culture creates the context for social interaction, it determines a large part of what senior executives' do and how they do it. Hence, it is believed that organisational culture and senior executives' skills and capabilities will impact KM practices adoption within public sector organisations.

The findings in the literature indicate that the more an organisation's culture encourages KM practices adoption, the more new knowledge is created. In addition to this, extensive KM practices adoption has a positive relationship with the performance of knowledge transfer and the creation of knowledge assets. Moreover, KM practices are the main outcome of employee involvement inside an organisation, and this depends on senior executives' skills and capabilities in engaging and driving their employees. The more employees are engaged, the greater knowledge practices adoption will be.

The next chapter will discuss research methodology, present a discussion on the choice of qualitative research methodology, and discuss steps taken to pilot test the research instrument within an educational public setting organisation in the UAE.

5 RESEARCH METHODOLOGY

This chapter presents the research methodology used in this study. It further captures the methodological approach, description of the research philosophy, explanation of the research paradigm, approach to data collection design and methods, and choice of data analysis tools. The chapter also includes a justification for the choice of qualitative method. It clarifies the pilot study approach and sampling method adopted, and details the ethical approach to the research.

5.1 Research Paradigm

A research paradigm is constructed based on assumptions and propositions, where the researcher investigates and explores these assumptions in reality. The word paradigm originated from the Greek word “paradeigma”, which means patterns. Thomas Kuhn (1970) was the pioneer in using the word paradigm to represent a conceptual framework developed by a group of researchers which provided them with a suitable model for exploring problems and finding solutions. Other researchers such as Patton (1990) define paradigm as a process of breaking down of real-world problems or complexity into smaller pieces to enable easy investigation and examination. Guba introduced it as a framework to support researchers to interpret and understand the research problems, which is guided by “a set of beliefs and feelings about the world and how it should be understood and studied” (1990, p. 17). Correspondingly, Miller and Brewer presented the paradigm as a “theoretical structure or a framework of thought that acts as a template or an example to be followed” (2003, p. 220). Paradigm is also introduced by Creswell (2009) as a way for the researcher to think, communicate, perceive, and see the world, taking into consideration the limits of what can be tested at any one time; as some variables cannot be tested without defining a specific research paradigm. Therefore, based on the definitions above, the paradigm is a framework of a structured and systematic way thinking to support the researcher in examining their problem or proposition using a well-organised process no matter what methods are used. It supports

the researcher in defining the type of questions to be asked, and the type of methodology to be used in examining the research questions. Therefore, the researcher's findings are examined and defined by the paradigm adopted.

In addition, Guba emphasised that these paradigms are categorised and classified by the way their advocates responded to the following three philosophical questions:

1. Ontological consideration (What is the nature of the knowledge under study?)
2. Epistemological considerations (What is the nature of the relationship between the knower 'the inquirer' and the known 'or knowable'?)
3. Methodological considerations (How should the inquirer go about finding out knowledge?) (1990, p. 18)

In the following section, I will briefly define my research paradigms as well as indicate the research methodology adopted by this study

5.1.1 Research Paradigms Philosophical Approaches

Many researchers, such as Saunders & Lewis (2009), and Biklen & Bogden (1992), recommend that researchers clearly understand their research paradigm for better interpretation of the results of the empirical study. Consequently, the literature on research paradigms presents various philosophical approaches, for example, positivism, realism, interpretivism and critical theory (Bellamy, 2011; Rubin & Babbie, 2010; Creswell, 2009; Gall et al., 2007; Henning et al., 2004). Researchers such as Hallebone and Priest (2009), Saunders & Lewis (2009), and Denscombe (2007) believe that social research is dominated by the positivism philosophical approach, which aims to investigate social phenomena and exploring real world cases.

Orlikowski and Baroudi (1991) point out that a research paradigm can be one of three categories: positivist, interpretive and critical. Myers et al. (2004) lend support to Orlikowski and Baroudi and states that qualitative research can be positivist, interpretive or qualitative (see Figure 3).

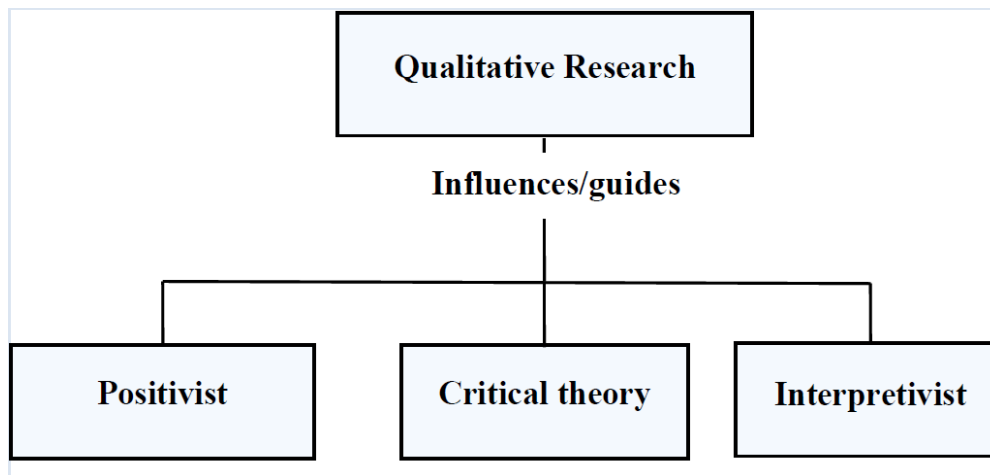


Figure 3 Qualitative research philosophical influence, source: Myers et al. (2004)

5.1.2 *The Positivism Paradigm*

The positivist paradigm according to Glesne (2011) and Gall et al. (2007) evolved from the idea that reality is isolated from individual observation. This means that the physical worlds are distinct and independent of social world. Reality is seen to be distinctly constructed under this approach. According to the positivist approach, the behaviour of individuals is determined by their social world, which is subject to patterns that are empirically observable. Thus, in order to understand a phenomenon, the positivist researchers concentrate on facts and commonly tested theories (Orlikowski & Baroudi, 1991). Positivist researchers are independent of that which is being researched (Creswell, 2009) and they are concerned with an objective reality that is “out there to be discovered” (Kratwohl, 1998). The positivist paradigm fits well with the quantitative research method, while the qualitative research method itself covers both positivist and the interpretivist approach. Positivist work tends to examine qualitative data with propositions that can then be tested or measured in other cases, while interpretive work tends to combine data belief and interpret judgements and answers.

5.1.3 *The Critical-Theory Paradigm*

In contrast to the positivist paradigm, the critical-theory paradigm generally accepts the existence of multiple social realities that are combined with the groups involved in the research study. The critical-theory paradigm makes the truth knowable only in a particular

social group's constructed reality. In this regard, Guba and Lincoln (1994) indicate that both the researcher and the participants' relationships are seen as interactive, where knowledge is mediated by the level of engagement between the participants and researcher. Thus knowledge value is dependent on the level of engagement among the social group.

The critical-theory researcher aims not only to examine behaviours in societies but also to change them. Moreover, in this paradigm researchers review and translate social, political, economic, ethnic and gender values. For instance, a research question may entail a long-term comparison and examination of social group characteristics and the relationship between them, in addition to their historical backgrounds. This method does not apply to this research since the researcher is not looking for multiple or groups realities.

5.1.4 The Interpretivist Paradigm

As mentioned above, a qualitative research method can combine both positivist and interpretivist paradigms. But what is the difference between those two paradigms?

The difference concerns the viewpoint on epistemology. The interpretivist approach combines the knowledge world reality and the individuals who observe it. Reality, according to Walsham (1995), is subjective, which means that individuals use language, shared meanings, and tools, and documents assign meanings and values to their unique contexts. Glesne (2011) defines reality as the social end result of individuals' interaction and humans' interrelation between various beliefs and values. For instance, in an interpretive research study there are no prior categorisations of dependent and independent variables, but the focus is more on examining the complexity of human nature as the situation emerges. Human social relations are complex and mixed, and not easily measured. The interpretivist researcher has a tendency for deep examination and exploration of the subject under inquiry, taking into consideration the individual's subjectivity as a part of the study context. In simple terms, in order to understand the social world under the interpretivist approach, we need to interpret it. Therefore, the interpretivist approach requires interacting with individuals in their social environment and discussing with them their perceptions, thoughts, ideas and beliefs (Glesne,

2015). In this study, the researcher focuses exploring the factors behind the organisational change inertia phenomenon and its impact on KM practices adoption, by objectively testing study propositions and avoiding interpreting an individual's perception.

5.2 Methodology

The topic, as the research title indicates, is set in a UAE Ppublic sector organisation. Therefore, this research relies on primary data that will be collected from interviews, secondary data from the field literature and documents published by the UAE government. In order to investigate the research questions, a case study will be conducted to investigate KM's role in driving performance inside a selected public sector education administration body in Abu Dhabi. The information for this case study will be gathered from interviews with a selected sample of participants. This section provides justification for the chosen methodology and data collection methods employed to carry out this research. The section includes an explanation of the methodological framework, the data collection methods, the data analysis process and the type of study sample.

There are two basic elements that affect the choice of the data collection instrument: the research approach (qualitative or quantitative) and the research questions. The researcher should ensure that the data collection methods generates the types of data that are capable of responding to the research questions and that adhere with the philosophical assumptions underlying the overarching research paradigm (Snape & Spencer, 2003).

As an exploratory study, the researcher will design open-ended interviews questions in order to generate a rich understanding of human experiences with KM practices adoption in a public sector organisation. Therefore, the qualitative research methods offer appropriate instruments to conduct this research.

The research methodology will investigate the research problem which covers KM practices adoption and draws on the need to understand what the public sector's organisational culture is, and the role of senior executives' skills and capabilities in minimising organisational

inertia to successfully adopt KM practices, so that it could be used to improve UAE public sector organisations' performance.

As mentioned in the introduction, this study expects to contribute to the limited research on KM concepts, such as knowledge adoption practices, knowledge sharing, and knowledge fairs, in public sector organisations (Roy et al., 2012; López-Nicolas et al., 2011; Zhang et al., 2010). This research is of great practical relevance because many public sector organisations are trying to adopt new solutions to improve their organisational performance and service quality (Van Dooren et al., 2015; Brown et al., 2013; Hunter & Nielsen, 2013).

According to the literature review, KM practices adoption seems to be the solution for public sector organisations to drive efficiency and ensure higher sustainability (Osborne et al., 2015; Gloet & Samson, 2014). Leonard-Barton (1995) stresses that organisations improve efficiency and sustain results through KM adoption practices, which actualise economic value through a collection of knowledge assets. Other researchers have pointed to the important role of KM as a valuable internal driver for raising organisational innovation potential and performance (Aggestam 2015; Birasnav, 2014; Sultan, 2013; Raadschelders, 2005).

However, many of the public sector's KM initiatives have failed due to weak implementation strategies that led to uncoordinated KM practices adoption and a high organisational change inertia (Kim et al., 2014; Greco et al., 2013; Al-Adaileh & Al-Atawi, 2011; Siemieniuch & Sinclair, 2004). Further clarification in the KM literature is needed to understand public sector organisational change inertia and KM adoption practices (Grimaldi & Rippa, 2011). The literature points to the public sector organisations' environments as a unique and particular context in which their stakeholders and accountability differ significantly from those of the private sector (Arora, 2011; Chawla & Joshi, 2010). Thus, public sector organisations should not import KM models and practices from the private sector that have been developed without taking into consideration the unique and particular culture of public sector organisations (UNPAN, 2007).

For the qualitative research, the researcher has chosen, a variety of empirical materials – pilot study, personal experience, interview, observation and visual texts – that describe routine and problematic moments and meanings in individuals' lives (Denzin & Lincoln, 1998).

Because of the inherent subjectivity of this research, largely based on human experiences with KM practices adoption inside a public sector organisation, the one-to-one interview method will be used to generate data during the pilot study.

5.2.1 Research Method Justification

As mentioned in the Introduction chapter, the main objectives behind carrying this study is to explore the nature of the relationship between public sector organisational change inertia and KM practices adoption, and how both organisational culture and senior executive's skills and competencies impact upon this relationship.

All these factors (organisational inertia, organisational culture and senior executive skills and competencies) were deemed important in the literature. However, the nature of their impact on KM practices adoption still undefined and unclear. Hence, the researcher will explore the phenomenon under investigation by carrying an exploratory research that involves an empirical qualitative method.

Such a design will support the researcher to better investigate relationships when the factor of the study is unclear.

In fact, a lack of a clear understanding of how public sector organisational change inertia, culture and senior executives' skills and competencies influence KM practices adoption led the researcher to opt for an empirical exploratory study.

The literature review chapter indicates that there are diverse antecedents can support organisations in adopting successful KM practices. Since those factors vary in their impacts on public sector organisations' KM practices adoption, the researcher decided to employ a qualitative exploratory study to further understand these factors' impacts on the successful adoption of KM practices inside UAE public sector organisations. Researchers Cooper and

Schindler, (2006) suggest that researchers deploy exploratory research when the causes of the phenomenon being studied are not clearly addressed or suggested in the research field. Therefore, exploratory research can be employed by researchers when they are uncertain about what approach to employ for examining the research problem, especially when the problem's causes are not well defined in the research filed. Cooper and Schindler also point out that the exploration saves time and money in developing a deep understanding of the research problem, before deploying more extensive studies.

There is still a lack of knowledge of the key components impacting KM practices inside public sector organisations, and the way that these practices should be addressed and managed in the public sector context.

This lack of understanding is due to the fact that public sector organisations' governance of internal process, inertia, routines and regulations are governed by law, regulations and national culture. Hence, management are not able to drive change as smoothly as in the private sector.

Therefore, the researcher chose the qualitative method to gain deeper understanding of the factors impacting KM practices inside public sector organisations (Bryman, 2001), in contrast to the quantitative methods that were usually used to collect numerical values describing and measuring the relationships among obvious variables and patterns (Bryman & Bell, 2007).

See the following table describing the differences between both quantitative and qualitative methods.

Table 16 Differences between quantitative and qualitative methods, adapted from McDaniel and Gates (2001)

	Qualitative Research	Quantitative Research
Type of questions	Probing	Limited Probing
Sample size	Small	Large
Amount of information from each respondent	Substantial	Varies
Requirements for administration	Interviewer with special skills	Interviewer with fewer special skills
Type of analysis	Subjective and interpretive	Statistical and summation

Hardware	Tape recorders, projection devices, video recorders, pictures; and discussion guides.	Questionnaires, computers and printouts
Degree of reliability	Low	High
Researcher training	Psychology, sociology, social psychology, consumer behaviour, marketing and marketing research	Statistics, decision models, decision support systems, and computer programming
Type of research	Exploratory	Descriptive or causal

This study aims to evaluate the three theoretical propositions and evaluate the proposed theoretical framework with UAE public sector organisations. Hence, the researcher started with induction method and proposing building a theory, and then went on to a deduction method and tested the theory (Gummesson, 2003). This gives researchers the opportunity to evaluate the theoretical framework and the study propositions, by drawing new insights from the collected data using a semi-structured interviews (Saunders & Lewis, 2009). This means that in terms of methodology it is necessary to adopt qualitative approaches. The structural aspects of the research's model required the use of qualitative methods relating to the internal organisational context that impacts KM practices in the public sector, using the interviews to capture an qualitative perspectives and definitions of the internal organisations environments and individuals' interpretation. Based on the discussion above, a qualitative technique is the most useful method in this research, with semi-structured interview as the data collecting tool. The interviewees will give in-depth information and answer the “how” questions in this research such as “how is KM practices perceived in your organisation and how do senior executive perceived KM in the organisation?”

A number of authors indicate that the semi-structured interview format ensures data reliability as it:

- provides the researcher with additional clarification on the interesting and relevant issues raised by participants (Hutchinson et al., 1992)
- provides the researcher with an opportunity to explore sensitive issues (Nay-Brock, 1984; Treece & Treece, 1986)

- ensures that the researcher has valuable and complete information (Austin & Grant, 1981; Bailey & Garralda, 1987)
- allows the researcher to explore and clarify inconsistency answers within participants' profiles (Smith et al., 1992).

5.2.2 *Research Methodology Steps*

The researcher adapted the research paradigm discussed in Churchill (1979) to define the following steps.

Step 1: Specify domain

The first step involved the definition of the research scope and domain. The researcher has chosen to investigate how public sector organisational change inertia impacts the KM practices adoption.

Step 2: Identify key variables

Exploratory research benefits from literature searches, experience surveys and insight stimulating examples (Selltiz et al., 1976). Previous research helps to identify and define key variables. As suggested in step two, the researcher has examined literature on the following topics: knowledge management, organisational culture, organisational inertia and senior executives' role in driving a better adoption of KM practices. This process enabled the researcher to develop a full understanding of the key variables, research gaps and managerial problems that underline the research objectives. Thus, public sector organisations are making great effort in collecting data on KM. Furthermore, the researcher's prior experience in the education sector and UAE's vision as a future knowledge economy have improved access to data.

Step 3: Access to data (and availability of data)

This research aims to answer the questions "how is KM practices adoption affected by the public sector organisations' inertia in the UAE?", and "what is the role of both leaders and culture in mitigating the impact of inertia on those practices?" This research is expected to provide the UAE public sector management with a better understanding on how to better

deploy their organisation's KM practices to improve performance and efficiency. The researcher has found that many governments have started to realise the importance of KM in driving higher performance and efficiency to their organisations. Hence, these organisations have begun many initiatives and projects to utilise knowledge in policy-making and service delivery to the public (Moffett & Walker, 2015). This finding is echoed in the public sector's strategy, planning, consultation and implementation (OECD, 2001; 2003). Moreover, researchers such as Theocharis & Tsihrintzis (2016), Massaro et al. (2015) and Buheji et al. (2014) have addressed the role of KM in fostering public sector efficiency, innovation and driving performance. However, many of those initiatives in public sector have failed due to different factors like change inertia, organisational culture and poor leadership attitude. Since the public sector is interested in new approaches to improve organisational performance, organisations in this sector are making great effort to track KM initiatives.

Step 4: Identify data collection method

Churchill (1979) refers to the importance of developing and selecting an appropriate data collecting instrument. The researcher in this study has chosen to use face-to-face interviews, which happen to be one of the most common data collection methods used in research (Gummesson 2008; Miles & Huberman, 1994). The research was conducted in UAE education public sector organisations. Interviews are particularly useful to access areas which are not open to quantitative methods and/or where depth, insight and understanding of particular phenomena are required (Gill et al., 2008). Interviews support the researcher to understand and define the common patterns, similarities and differences in selected organisations. This method of analysing face to face interviews has been used in different qualitative research (Gummesson, 2008; Miles & Huberman, 1994).

Step 5: Collect data, define sampling and testing approach

The researcher used a purposive sampling approach in the study. The researcher has followed step 3 by developing a pilot study to test the data collecting instruments, support the researchers to identify the unexpected problems and any ambiguity of the instrument outputs

(Burton & Merrill, 1991). Thus, a pilot study was conducted before collecting the full data in order to examine any deficiencies in the research instrument.

The pilot study took place between January and February 2017 in a UAE public sector organisation that operates in the education sector, where eight senior executives working at the operational, management and strategic levels were chosen as pilot study respondents. These executives expressed their interest to take part in the pilot study voluntarily, further to which they were invited to sign the consent forms prior to the interview and observations. Based on this step, the researcher revised her data collecting instruments for the actual study phase.

Step 6: Analyse data, and coding

The researcher will identify and review all the interview transcripts to make sure that the participants have understood the questions. Following that, the researcher will initiate the transcripts coding process and conduct the analysis using Nvivo software and thematic analysis.

Step 7: Develop norms

At this stage, the study will conclude with data interpretation, method analysis, proposition testing, and discussion, recommendation(s) and report findings. The researcher will code and interpret the study data to answer the research questions and test the research propositions. The findings report will present a list of recommendations and limitations for the UAE public sector organisational management. The recommendations are expected to support academics and practitioners in driving successful KM practices adoption initiatives in the public sector setting.

5.2.3 Research Instruments

5.2.3.1 Interviews

The research uses interviews as a tool for data gathering. Rubin and Rubin (2011) defined the qualitative interviews as the way that a researcher discovers and understands other people's internal feelings, opinions and perceptions of a certain phenomenon or case and surrounding

environment. Interviews are also a circumstance of where data and information are extracted based on a conversation of two persons “researcher to participant” regarding a case or certain subject in which conversations can be held by phone or face-to-face (Daniels & Cannice, 2004).

Daniels & Cannice (2004) point to the importance of interviews as a data gathering tool especially in business research studies in the following three points: first, interviews are a very important empirical data gathering instrument in exploratory studies, where researchers want to understand the interrelationships among different study variables and to explore new relationships. The interviews reflect the participant’s opinions, ideas and reflections in a very particular way and provide the researchers with new insights and information “qualitative interviewing is an important adventure; every stage of an interview brings up new information and opens a new window into the experiences of the people” (Rubin & Rubin, 2011, p.1). The second benefit is that interviews provide the researcher with deeper insights, data and perceptions from small interviews populations. Although population being studied is small, the researcher will be able to undertake deeper discussions to extract and gather deeper data. The third benefit is that, based on the data gathered, the researcher will be able to develop a deep rapport with the study participants. In this way, the researcher can build a good relationship with the participants, which will be helpful to her in case she requires further information or clarification.

Interviews may be divided into three types according to the purpose, type of data, sample size and even the role of the interviewers and interview participants. These three interview types are as follows: structured, unstructured, and semi-structured (Fontana & Frey, 2000; McMurray et al., 2004; Rubin & Rubin, 2011). The following sections highlight these interview types and the differences between them.

5.2.3.2 Interview Types

5.2.3.2.1 Structured Interview

In this type of interview, the researcher structures, prepares and presents a unified model of questions to all the participants. Hazeri (2008) points out that structured interviews constitute a specific series of questions involving restricted responses, where the researcher asks each participant the same series of questions.

The researcher should maintain the same attitude and behaviour across the interviews with participants. Structured interviews are recognised as being strict and less flexible in terms of the questions that the researcher needs to ask and participants' responses (Merriam, 1998). In this type of interview, the researcher's role is neutral. Her role is to control the process of the interview, ask questions and guide the participants back to the questions if they move from the study subject. Hesse-Biber and Leavy (2011) argue that this type of interview provides the researcher with an excellent opportunity to compare the interviews participants' answers, because the nature of the interviews questions was standard and highly structured.

5.2.3.2.2 Unstructured Interview

In contrast to structured interviews, unstructured interviews provide the researcher with more flexibility to ask questions and opportunities to extend discussions (Sarantakos, 2005). The researcher can also ask broad questions and leave the floor to the participants to take the discussion in any direction that they desire (Hesse-Biber & Leavy, 2011). Moreover, the researcher is not required to follow a standard question with each participant; she could ask different questions to develop a better understanding of the study subject and encourage the participant to lead the discussions. Therefore, the unstructured interview provides the researchers with uncategorised data from the open discussions that they have conducted with the participants (Merriam, 1998). The researchers also learn more about their case during these interviews, because participants freely express what they believe to be relevant to the researcher's chosen study subject. It is expected that the answers will not be similar to each other, and will support the researchers with a deep understanding in discovering new relations or factors in their research (Hazeri, 2008). Regardless of the advantages of this type

of interview, this type will not be used in this research due to the time pressures on participants,

5.2.3.2.3 *Semi-structured Interview*

Semi-structured interviews provide the researcher with long and detailed data and the flexibility to lead the discussion, to stipulate questions in terms of their wording and order, and to pursue any new questions that may arise during the interview to gather more information (Ding et al., 2011;; Rubin & Rubin, 2005; Daymon & Holloway, 2011). This type of interview requires the researcher to follow the interview guide to maintain similarity in the gathered data types. Even if the interview guide is long and detailed, the researcher should still maintain that same standard be applied across all the participants, in order to create a meaningful collection of data with relevance to the study subject (ibid).

The semi-structured interview is ranked in the middle between the structured and unstructured interview types. It comprises elements of both and provides the researcher with some leaning in the direction of the structured interview guide and flexibility in the direction of the interview participants (ibid).

Sarantakos (2005) points that the type of the interviews type used in a research study depends on the study methodology's objectives, aims, topic and the nature of the information the research sought which naturally relates to the study's purpose. In this regard, Hesse-Biber and Leavy (2011) point out that the type of interview influences the researcher's role during the interviews sessions. The higher the level of structure sought, the more control and direction the researcher introduces. The figure below represents the type of the interview structure:

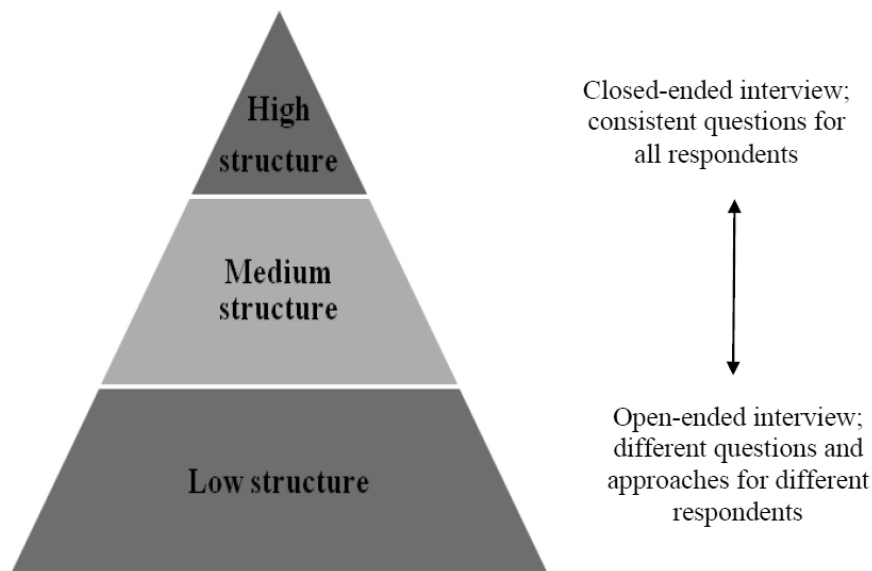


Figure 4 Interviews structure types, source: Hesse-Biber and Leavy (2011)

Moreover, in semi-structured interviews, the researcher is allowed to add questions during the interview in order to gather additional data regarding the study's objectives or to explore a new issue that may arise during the interview discussions with the participants (Collis & Hussey, 2009). Also, this type of interviews provides the researchers with richer text data since it allows the participants to share their ideas, thoughts and opinions while responding to the questions. This richness comes from the researcher's follow-up and probing questions which encourages participants to express more and expand upon their answers to the interview questions.

5.2.4 *Intrument Testing Process*

5.2.4.1 *Pre-pilot Testing of Instrument*

The researcher pre-tested the research instrument and semi-structured interview questions before the pilot testing phase. The interview questions were discussed with two external specialists in interview construction in order to assess the ease of understanding the questions in the research context. The researcher also went through many discussion sessions with her supervisors to synthesise the interview questions. Following that, the researcher shared the interview questions with two PhDs students for feedback; these students and doing their

PhDs in business management studies in the UAE at British universities. Finally, the researcher ran trial interviews with three colleagues who have worked in a public sector educational organisation; the colleagues were selected from three different management levels – top management, middle management and operational management – to ensure that the interview questions were clear and covered the purposes of the study. The trial interviews allowed the researcher to familiarise with the interview processes and to estimate the time required for each interview, which was around an hour. This part of pre-pilot study was very useful for the researchers to edit and adjust any broad or misleading questions. The next section elaborates the pilot study phase undertaken in this study and the procedures followed by the researcher to gather the data.

5.2.4.2 The Pilot Study

Researchers Polit et al. (2001) point to the pilot study as a procedure employed by researchers to run trail studies and feasibility investigation on small-scale samples. This is usually aimed at exploring research areas and business problems where there are knowledge gaps (Chenail, 2011) and to pre-test the data gathering instrument (van Teijlingen & Hundley, 2001). In this study, the researcher employed the pilot study as an instrument to examine the data gathering procedures, to apply all the steps of scheduling and to assess any difficulties in gathering research consent forms. During the pilot study, the researcher was able to test the interviews questions, evaluate her skills in moderating constructive discussions and the rich context with the pilot study participants, revise unclear questions and align with the research conceptual framework (Robson, 2002; Yin, 2015). Moreover, the pilot study procedure provided the researcher with an opportunity to practice interviewing, transcribing, interpreting and writing skills. Furthermore, the pilot study provided the researcher with the opportunity to test the quality of the interview guide and identify any possible biases during the pilot interviews. For example, after the first pilot interview, the researcher commented and reported to her supervisors that the interview answers were good; she later discovered

that such comments and reports indicate a poor interviewing technique. Therefore, in the other ensuing pilot interviews, the researcher has maintained and applied all best practices such as the need to stay neutral towards participants' answers, maintain a respectful silence and avoid misleading questions or driving the pilot study participants to answer in such a way that supports the researcher study and thereby engenders a bias.

At the end of the pilot study interviews, the researcher asked all participants in the pilot study to provide her with their feedback on the interview questions, which led to a significant improvement in the questions and their structure. In the next section, the researcher introduces the pilot interview steps that were used during the pilot study interviews.

5.2.4.3 The Pilot Interview Processes

The pilot study is used only to test and evaluate the whether the semi-structured interview questions could achieve the study's objectives and aims. None of the pilot study interview data was treated as real; the results of these interviews were only for the purpose of improving the interview questions, revising the research instrument and eliminating any unclear questions before moving on to the actual study data gathering.

The researcher contacted eight executives from an educational organisation in the public sector and arranged meetings at the participants' offices. The researcher used, with consent, a voice recorder to record the pilot study interviews. During the meeting, the researcher requested that the participants close the office doors and switch their mobile into silent mode to avoid any interruption or distraction during the interview process. The researcher started with the general introduction of the study objectives and applied the interview protocol. After each interview, the researcher transcribed the recorded information, as well as writing down her perceptions regarding the interviews and participants. During the interview, the researcher tended to ask direct questions, and encouraged all participants to ask questions if they did not understand the question or needed further clarification.

The first step in the pilot study was to prepare the participant for the interview. The researcher used the interview protocol as guiding map to ensure that all the topics of the study constraints were covered during the pilot interview.

The interview started with a general introduction to research aims, significance, procedures, and research ethics conduct. This introduction was necessary to create a friendly atmosphere and elicit greater engagement during the interview process. After that, the researcher has asked the participants to fill and sign two consent forms copies as proof of their acceptance and willingness to participate in this study.

Following that, the researchers started the interview by asking the participants general and opening questions in order to inform the participants that the interview process had begun. The researcher started with questions such as the length of their experience in the public sector, their roles and positions in the organisation and other demographic information needed for the study.

The researcher used open-ended questions during the interview to obtain more information and to allow participants to answer in the way they felt appropriate or necessary without limiting them with word length. For example, how is knowledge management perceived and measured in your organisation? What kind of...? Do you believe that ...? How does the..?. Each interview took around one hour to complete. The interviews were recorded and transcribed directly after each interview. During the interviews, the researcher observed the participants and took notes about their body language and behaviours. Those notes were then summarised and kept as supportive data for the researcher to gain a better understanding and judgement of the participant's answers as an annotated transcript. Following transcription, the researcher prepared a short narrative describing all the participants' profiles and demographic information.

Moreover, the researcher found that most of the pilot study participants supported the KM practices adoption in UAE public sector organisations. Participants believed that KM practices enhance these organisations' performance. Moreover, the pilot study participants

also point to the key role of the senior executives' skills in driving the KM practices adoption, as well as the role of those seniors in encouraging change of their organisational inertia. In addition, the pilot study participants indicated that organisational culture exerts a moderating effect on KM practices by improving the organisation's KM culture through fostering knowledge sharing, employee involvement, innovation, and sustaining long-term knowledge culture in UAE public sector organisations.

By the end of the pilot study interviews, the researcher had gathered the following items:

- interviews audio records and transcripts
- interviewee sheet includes all the participant's demographical information
- eight consent forms signed by the pilot study participants

The researcher carried out these eight pilot study interviews in one month. It was clear to the researcher by the end of these interviews that she needed to revise the interviews questions to be more focused and to eliminate the broad purpose questions that would be confusing for the participants.

5.2.5 Data Analysis Processes

Bloomberg and Volpe (2008) argue that qualitative researchers can organise their data differently depending on what they are comfortable with. Because of the flexibility of qualitative research and its nature, there are no specific rules regarding how data is to be managed in qualitative studies. However, in qualitative case studies, the researcher must have a permanent, accurate and complete process for recording and storing the data (Crossley & Vulliamy, 1997).

To achieve a high level of accuracy in the reporting of the data in this research, interviews were recorded and stored on a computer storage device. All the observation drafts as well as the interview audiotapes were kept and stored to be used when necessary.

The data analysis was divided into three basic processes:

- 1 data reduction, where data should be edited, divided and summarised
- 2 data verification; where the data will be categorized around themes or specific topics

- 3 data presentation and conclusions, where the researcher will analyse, explain, and verify any conclusions drawn (Miles & Huberman, 1994)

This research uses the triangulation method to analyse the case study, relying on three overarching sources of data to conclude the overall results of the study (Golafshani, 2003). The researcher will perform the triangulation of data by using evidence from the selected organisation secondary data: the interview response analysis. The researcher will code and analyse qualitative data by using qualitative data analysis software (Nvivo 11) and intercepting the analysed data to define the relationship between the KM and the sample performance. Finally, the conclusion validation of this research is based on analysing the study research questions response and the problem statement to draw a valid conclusion of the extracted results.

5.3 Sampling

Study sampling or a sample stands for a smaller number of cases, usually at the level of units, sites and individuals who are selected with the purpose of representing a larger population. In many cases, the study sample is considered to be representative of the wider population (Hammond & Wellington, 2013). In the same context, scholars stress the fact that sampling is one of the most important factors in delivering and producing quality research supported by the researcher's methods and the proper selection of methodology. In qualitative research, researchers tend to select purposive non-probability sampling as it support them in better examining the participants answers, discussions, ideas and perceptions a given context at a particular time (Patton, 2002).

5.3.1 Purposive Sampling and Snowball Approach

According to Denscombe, in the purposive sampling approach, the researcher usually knows and selects the participants that are likely to provide the most valuable data. "The advantage of purposive sampling is that it allows the researcher to home in on people or events which there are good grounds for believing will be critical for research" (Denscombe, 2007, p. 17).

In line with this, Patton (1990) highlights that the strength of the purposive sampling lies in the selection process of information-rich cases to deliver a deep study analysis and understanding.

In line with this, the researcher used purposive sampling and selected senior executives from a UAE public sector organisation operating in the education sector. The selected sample of participants was based on their seniority and capacity to drive change in the selected public sector organisation, which will serve the purpose of the research recommendations. During the sample selection processes, I also used the snowball sampling method which helped me to identify other participants for both the pilot study and the actual one. The snowball sampling method was recommended by Gray (2009) as an effective way to reach a larger pool of participants, by selecting a smaller number of participants who will support the researcher by recommending other participants from the population. I used the snowball sampling by asking the recommended questions by Patton (2002) such as Who will be the right person to speak to, given the topic being researched?, Who do you think would be interested this study? and other questions such as Who should I talk to?. The first selection of the participants for the pilot study consisted only of three participants and then the number has emerged with their recommendations to eight participants in total. Denscombe states that “the sample emerges through a process of reference from one person to the next” (2007, p.17).

I actually found the snowball sampling to be a very helpful method in building my study sample, and I have followed the same method in the actual study phase of this research. However, I would highlight that the nature of my research is an exploratory case study, and I have selected to divide it into two phases: the first phase is the pilot study which aims to test the validity of my propositions, improve my interviews and my research questions. Regarding the sample size in the pilot study, eight senior executives from a public sector organisation operating in the UAE education sector agreed to participate. This sample may be considered small but, as I have mentioned, the objectives of the pilot study were to ensure the

validity of my research questions, research perceptions, and the interviews context and questions. Moreover, the sample size depends on what we want to know, the nature of the study and the objectives of the inquiry carried by the researcher; qualitative inquiry does not specify a rule for the sample (Patton, 2002). Finally, the size of the sample study also depends on other factors such as the contribution of the study, the research phases and the research time plan. Having introducing both the sampling and sample size of research, the next section will present the pilot study which I carried out prior to the actual study.

5.3.2 *Qualitative Data Analysis Processes*

Qualitative data is a mass of text generated through different data collection methods, such as structured and semi-structured interviews, observations, and audio analysis audio or video cast streaming. Researchers such as Lacey and Luff (2007), Lewins and Silver (2007), Murphy et al. (1998) and Miles and Huberman (1994) point out that the qualitative data process of analysis and summary of qualitative data should be based on a clear analytical structure. Furthermore, qualitative data analysis includes discovery of relationships between variables, the development of connections between the data themes, reflection on respondents' characteristics and beliefs, and the consolidation of conclusions and recommendations. The analysis further helps interprets previous studies' findings and validates them. Finally, this process involves answering the research questions, recommending policy changes and/or identifying solutions in response to the business problem.

The research conducted for both the pilot and actual study followed a uniform protocol developed by Lacey and Luff (2007), who identify steps that researchers should follow while conducting qualitative data analysis to ensure that the interviews yield data consistent with the study's goals. The following sections elaborate these steps.

5.3.2.1 Transcription

The interview data may be recorded, with the explicit consent of the participants, as video or audio format, which requires the researchers to transcribe it and summarise it, even the non-verbal matter such laughs or moments of silence moments. Non-verbal matter is considered an important element of any verbal conversations which may represent an emotion or feeling that relates to the study. Hence, all verbal- and non-verbal matter between researcher and respondents should be transcribed.

5.3.2.2 Organisation

During transcription, the researcher should make sure to organise the data in an easy and retrievable structure. For instance, each interview should be labelled with a code or number for identification. Important and personal data, such as name and employer details of the respondents, should be replaced by a code or a number for anonymity.

5.3.2.3 Familiarisation

In this step, the researcher should become familiar with the data by listening to the interviews again and again, taking notes, summarising memos, and reading and rereading the transcripts to ensure that the data is transcribed correctly before starting with the data coding and analysis.

5.3.2.4 Coding

Following the familiarisation step, the researcher should start the coding process by assigning codes to the transcription. Coding is considered a cornerstone during the analysis process. When coding, the researcher categorises and subdivides the interpreted data from the interviews and try to identify themes (Dey, 1993). This indicates the important role of the coding in supporting the researcher to gain a deeper understanding of the research data.

5.3.2.5 Identifying themes

Moving from the coding step to identification of the themes, the researcher should identify the common concepts emerging from the coded data. Lacey and Luff (2007) point out that in some cases the researcher may need to re-code the transcription in order to develop better defined themes or concepts.

5.3.2.6 Developing and testing theory

After identifying the themes, the researchers should start exploring the relationships between the sets of data themes and test the emerging theory from the different data themes, until the theories being tested satisfy the related research constructs (ibid).

5.3.2.7 Conclusion and Report Writing

The final step, according Lacey and Luff (2007), is the discussion of results and the interpretation of the tested theory. At this point, the researcher may include citations from the original data to provide the readers with an evidence of the analysis. However, Lacey and Luff also point out that qualitative data analysis is a time consuming method, taking the researcher almost a third of the total time of the research project. They therefore recommend that researchers apply the above-mentioned steps to save time.

5.4 Qualitative Data Analysis Tools

Lacey and Luff (2007) suggest using computer software for qualitative data which aids the researchers running proper data analysis through transcription, data storage, coding, developing and testing theories. Therefore, in this study the researcher has used Nvivo computer software for the qualitative data analysis.

The researcher selected Nvivo after exploring several computer packages available, such as AtlasTi and NUD*IS. There are many factors that control the decision on selecting qualitative data analysis software rather than handling the data manually, for instance, the size of data, software cost and user friendliness. In this study, the total duration of the

interview audio data was more than 18 hours, which will require computer software to handle the data. The also researcher considered the licences cost and user friendliness in the software selection process.

The software is however used as a tool to support researchers in managing the study data, and it does not replace human input, judgement, data interpretation and analysis (Lacey & Luff, 2007). In this regard, Welsh (2002) argues that data analysis cannot be performed by solely depending on software. He/she points to the importance of the human role during data interpretation, coding and analysis, and recommends the researchers to use the software for organising and supporting tool for data processing, and points to the key role of the researchers in drawing conclusions, making sense of the themes' relationships and developing theories based on the software outputs.

Ozkan (2004) lends support to Welsh, inferring that researchers are able to manually handle very large amounts of data and to provide a meaningful analysis and conclusion, while still using software that can save the researcher time and effort during the data analysis process.

As mentioned earlier, for this study I used Nvivo computer software for the qualitative analysis of interview data. Nvivo is a software that is developed by QSR International and is considered as a further development of another software called NUD*IST which is also developed by QSR international. Nvivo came on board as an advance development after the NUD*IST software was unable to satisfy the demand of qualitative data analysis due to an incompatibility issue of NUD*IST's core architecture with some operating systems (Richards, 2002).

The first version of Nvivo was launched in 1999 and was able to quickly substitute for NUD*IST, to provide the researchers with a processing tool of character-based coding and to facilitate rich formatted text data management and simple editing. Furthermore, in their research Dean and Sharp (2006) have noticed the benefits and the drawbacks of Nvivo software. They reported their experiences with the software suggested that other researcher apply the following steps to guarantee the benefits offered by Nvivo:

- familiarise oneself with the data
- pay high attention to the actual data at all stages
- acknowledge that interviews are rarely complete
- keep the same study structure and continually revise it
- give attention to coding processes and continually revise them.

During this research, the researcher applied the steps suggested by Dean and Sharp (2006) during the qualitative data analysis processes to guarantee an effective usage of Nvivo software. The following table presents the Nvivo software terminology as it appears on the QSR 2017 website (<https://www.qsrinternational.com/>).

Table 17 NVivo11 terminology, source: QSR International (2017)

NVivo terms	Description
Sources	Collective term for your research materials, which includes documents, datasets, audio, video and pictures.
Nodes	A virtual container to gather related materials in one place, so that the researcher can look for margining patterns and themes.
Case	A virtual container that is grouping the research project items that are stored elsewhere in Nvivo project.
Coding	When the researcher assigns source content to a node or case.
Queries	Search queries and criteria to seek and explore patterns in sources.
Classifications	Descriptive information about the sources, node and relationships.
Attributes	When the researchers classify project data according to their pattern's and attributes. For instance, a case classification of 'person' might have attributes for age and gender.
Links	Links to connections between items in Nvivo project.

The Nvivo workspace has three main sections: the navigation menu, list view and details view (See Figure 5). The software's main functions and research main component (qualitative datasets and documents) can be accessed through the navigation menu or the upper ribbon. The list view and details section provide access to the actual processed content for each component. The researcher uses the sources component to store basic raw data collected from interviews, which will be used later in coding, classification and nodes relationships analysis. Overall, the Nvivo workspace gives the researcher a user-friendly interface to manage and process his or her qualitative data.

In this study, the researcher presents the analysis from Nvivo in three phases. In the first phase, the researcher presents excerpts from the interviews to explain the themes and constructs by using Nvivo11. In the second phase, the researcher presents the emerging sub-themes during the interview analysis. The final phase will present discussion and recommendations based on the thematic analysis.

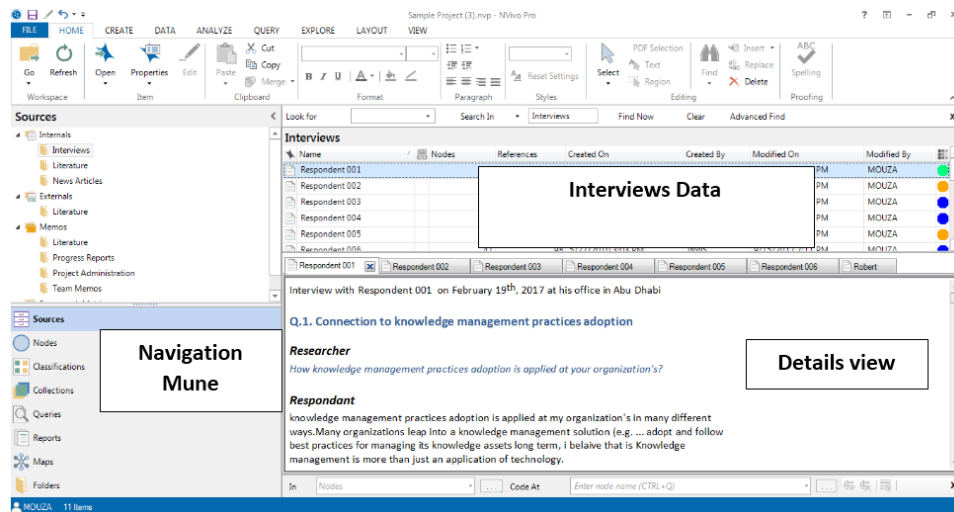


Figure 5 Nvivo11 workspace

Auld et al. (2007) and Bringer et al. (2006) indicate that there is limited literature supporting researchers using Nvivo software for qualitative data analysis. Auld et al. (2007) developed a decision tree to support the researchers in deciding whether to analyse qualitative data manually or use software to do so. Auld et al. (2007) arrive upon a conclusion on the advantages of using software for qualitative data analysis, highlighting that the software is just a tool that saves time and effort in data retrieving and sorting, as well as ensuring an efficient usage of the software features during qualitative data coding, analysis and interpretation of the query results. The researchers followed an online training provided by the QSR website and YouTube channel. The researcher in this study uses Nvivo11 as a supporting tool during the qualitative data analysis processes; coding, nodes connections, and interpretation will be carried out by the researcher. The researcher attended training on the use of Nvivo as a data analytical tool.

5.4.1 Ethical Considerations

This study addressed the ethical considerations on three levels: the participant level, the research-participant relationship level and the data level. At the participant level (and as part of the qualitative data collection regime), I have provided all participants with an information sheet prior to or during their interview. This form outlined the content and purpose of the research, with the goal of ensuring that participants have all the information they need in order to make sound decisions regarding their consent.

Amongst other things, the form addressed any risks that they might face when participating, and outlined their option to withdraw from the interview at any time and the maintenance of individual and institutional privacy and anonymity.

I also ensured that each participant read, completed and signed a consent form. Both the information and the consent form were reviewed by an academic in the ethics field through the University of Reading research ethics committee.

Moreover, all the participants in this research were treated in accordance with the University of Reading's research ethics committee that is responsible for establishing and maintaining an ethical review of research proposals. Even though there are no known ethical issues or risks associated with this research, the researcher has taken into consideration the governing norms and standards of qualitative data collection methods, which are as follows:

5.4.2 Ethical Treatment of Participant Confidentiality

The researcher will ensure that all the participants' data and personal information will be kept anonymous through pseudonyms in order to protect their personal and organisational identities.

5.4.3 Informed Consent

The researcher made sure that all the participants were fully informed of the following: the purpose of this research, estimated time commitment for the interview, interviewee's right to withdraw participation at any point and right to not respond to any question, their right to confidentiality and anonymity, and the voluntary nature of their participation. All the signed

consent sheets will be handed over to the Doctor of Business Administration Programme team to be maintained securely at University of Reading premises for any future ethical examination of the research work.

5.4.4 Data Anonymity and Safety

The research has made sure to restrict access to participant data and not to reveal the interviewee's identification without written consent. All the data collected and transcribed during this study will be saved on two external hard disks with encrypted passwords known only to the researcher. The data will be stored securely at different locations, and the softcopy data will be deleted upon the completion of the doctoral degree. A hard copy of the research data and participants' identification will be stored in the researcher's personal file cupboard which is locked at all times. Moreover, to ensure the anonymity of the interviewees, the following steps will be taken: names, titles, current or previous employer details. Any information that was discussed outside of the research's scope will be removed, changed or anonymised so that it will not hinder the presentation of the research results (Richards & Morse, 2007).

5.4.5 Avoiding Bias

The researcher is aware that semi-structured interviews can be misleading, such as where questions lead participants towards a desired answer. Therefore, the researcher has followed the following steps (based on Saunders & Lewis, 2009) during the interviews to reduce bias as much as possible. Firstly, potential sources of bias are discussed:

- one potential bias is sponsor bias, where an organisation sponsors the research and therefore expects the results to conform to organisational beliefs; this bias is not applicable as the research was not sponsored by the case organisation (an educational public sector organisation)
- another potential bias is observer bias, where the skills, experience and beliefs of the observer are a source of bias

- another possible bias is participant bias, where the skills, experience and beliefs of the interviewee are a source of bias
- the sampling strategy also has an inherent bias, where the researcher is aware of using purposive and snowballing sampling method

Steps taken to reduce bias include:

- in view of the research context – the public sector organisation in the Middle East – the researcher reflected on the potential differences (e.g. cultural, ethnic background etc.) between the observer and the participants. The researcher has extensive work experience in the public education sector in the UAE and is thus well versed with the cultural context. Furthermore, the researcher is an Emirati national and speaks the local language which reduces the differences
- the researcher conducted a pilot study to ensure that the interview questions were clear and easy to interpret
- the researcher prepared a checklist for the interviews and a list of questions for the semi-structured interviews, so as to reduce potential observer bias
- the researcher informed the participants that this was an independent doctoral research, where the case organisation did not sponsor the research and the researcher did not work for or represent the organisation
- the researcher maintained as much consistency across all the interviews, which included facial expression, body language and voice tone during the interviews
- the interviews were recorded with consent, which allowed the researcher to replay the recording and reflect on researcher questions (choice of words) and on the interviewees' responses
- the researcher ensured that the participants were made aware that the interviews were for her doctoral research purposes

- the interviewees were informed that the research was not sponsored by their employer organisation
- the researcher ensured that participants were aware about their right to confidentiality of responses. The respondents were assured that individual responses would not be identified or shared (neither with their employers nor with anybody else) and only summary findings would be published with no reference to individual names
- the researcher assured anonymity of responses. Therefore, the names of respondents would not be shared in the research outputs (e.g. thesis, academic papers etc.)
- the researcher emphasised that participation in the research was completely voluntary, and the interviewees had the right to withdraw at any time
- to avoid results bias, the research sample selection was based on the following three criteria: interviewee to be an employee in the educational public sector organisation in Abu Dhabi, the employee role (to ensure the participant had knowledge on the research topic) and equal spread of interviewees across three organisational levels
- the researcher ensured an equal spread of interviewees across three levels in order to avoid what Saunders & Lewis (2009, p.159) refer to as “if you interview top bosses, you are likely to encounter the ‘good news’ syndrome”
- since all the participants were from a sample study organisation, the researcher reviewed all the participants’ answers to make sure that the answers were relevant to the research’s subject and questions
- The researcher further reviewed organisational documents to triangulate understanding with interview results findings

5.5 Research Case Organisation and Profile of Interview Participants

5.5.1 The Research Case Organisation

The selected organisation is a public sector organisation, established with a clear vision and mission which drives its current and future activities; the vision is to be “recognised as a

world-class education system that supports all learners in reaching their full potential to compete in the global market with a mission focusing on improving the quality of education in Abu Dhabi to match international standards and the acquisition of learning and knowledge through socialisation and assimilation of national culture, attitudes, values, local opinions and learning from other nations' experiences, particularly western countries”.

The organisational structure team consists of 700 employees, of which five are executive directors, 43 senior executive managers of divisions, while 66 are managers of sections and around 600 employees working in their directorates and divisions.

5.5.2 Selection of Interview Participants

In this section, the researcher presents the profiles of the interviews participants and how they were selected to take part in this study. As mentioned in chapter 1, this study aims to investigate how organisational inertia impacts KM practices adoption inside public sector organisations and to understand the role that both organisational culture and senior executives' skills and capabilities in driving successful KM practices adoption and reduce the change inertia within these organisations. Moreover, the literature suggests that senior executives are playing a key role in changing organisational inertia and leading change within the organisations' culture. Competent and skilled senior executives will have a great influence over individuals to change, collaborate and overcome organisational inertia and drive innovation through knowledge practice adoption (Anumba et al., 2007).

Furthermore, senior executives should be present at all levels of the organisation regardless of size or sector. They should employ power, authority and charisma to lead change and learning in their organisations through culture, strategy and structure (Mahoney, 2000).

In this study the researcher adopted diverse criteria in the selection processes of the interviews participants as follows:

1. Public sector employee

This study investigates KM adoption in public sector organisations. Therefore, the researcher has limited the interviews participants to public sector employees, to ensure that the qualitative data collected is related to the study's scope

2. Position and seniority

According to Anumba et al. (2007), competent and skilled senior executives bear great influence over individuals to change, collaborate and overcome organisational inertia and drive innovation through knowledge practice adoption. The researcher thus included only senior and executive level participants during the data collection process.

3. Three organisations levels

Mahoney (2000) suggests that senior executives should be present at all levels of an organisation, regardless of size or sector. They should employ power, authority and charisma to lead change and develop learning inside their organisations through culture, strategy and structure. Thus, the researcher in this study interviewed 17 participants from top management, middle management and operation management, opting to cover the organisation's management structure.

Furthermore, all the interviews participants belong to the same study sample; the researcher selected this study sample after considering many public sector organisations during which an initial sample list of possible organisations was drawn up. Due to public sector bureaucracy, only one organisation allowed the researcher to run face-to-face interviews with top-level managers and granted her access to their data.

5.5.2.1 Purposive Sampling and Snowball Approach

As discussed earlier, the aim of the research is to understand the relationship between organisational change inertia and KM practices adoption in the UAE public sector setting. This study will thus further the understanding of factors that influence KM implementation within the context of public sector organisations, and highlight the challenges facing KM practices adoption such as resistance to change (Taylor & Wright, 2004; Bate & Robert,

2002). In addition, this research will investigate the role of senior executives' skills and capabilities and organisations culture in reducing these challenges.

Therefore, this study uses purposeful sampling to delve deeper into the concepts under study. Purposive sampling is not focused on sample size but emphasises the reasons and rationale of the study (Polit & Hungler, 1999, p.435). Denscombe points out that in purposive sampling the researcher usually knows and selects the participants that are likely to provide the most valuable data: “the advantage of purposive sampling is that it allows the researcher to home in on people or events which there are good grounds for believing will be critical for research” (2007, p. 17). In line with this, Patton (1990) highlights that the strength of the purposive sampling lies in the selection process of information rich cases to deliver a deep study analysis and understanding.

5.5.3 Initial Contacts and Gaining Access

The researcher established initial contacts with potential participants in the research case organisation by requesting the Learning and Development Department to email 54 managerial level executives in the organisation. The email was sent with an intention to identify executives who were likely to be knowledgeable on the topic being researched. The initial contact laid out the doctoral research objectives and aims and briefly captured the concepts being researched, that is KM practices adoption in a public sector organisation, the role of senior management and organisational culture in reducing change inertia. The email further detailed the research methodology: conducting face-to-face interviews lasting approximately an hour at the participant’s office premises and at a time convenient to him or her.

The researcher also emphasised that the objective of the interview was to gain in-depth insights based on the participant’s experiences. The researcher adopted a follow-up and reminder procedures to reach executives who had not responded to the initial contact. Two weeks after the initial contact, the researcher emailed the executives. A week later the researcher called the executive’s office landline number. Finally, the researcher contacted the

Learning and Development Director seeking his support to improve response to the initial contact, and thereby help enhance participation in the research.

As a result of this purposive sampling and snowballing approach, 17 of the 54 executives were found to be knowledgeable in the topic being researched, and they agreed to take part in the study. In order to succeed in the data gathering process, the researcher in collaboration with the Learning and Development Director organised a meeting to introduce the potential participants with a general overview of the research objectives, aims and significance. The researcher found this first contact with participants to be very useful in ensuring that the participants were aware about the study's nature and purpose. During this meeting the researcher also highlighted the research consent procedure and the rights of the participants. The meeting was finished by setting up a 17 calendar days' over one month to meet the participants for the interview (one participant per day, almost one hour each). This meeting was very helpful in "breaking the ice" and meeting the potential participants' on an informal basis. It also provided a good opportunity for the researcher to answer any general questions and concerns.

The process of finding a public sector case organisation willing to participate in the research and identifying potential interviewees from that organisation took approximately three months. This highlighted the practical challenges faced by researchers in the collection of empirical field data. The journey of communicating with various organisations, arranging meetings and gaining access to executives was particularly instructive.

Using a probability sampling and snowballing approach, 17 executives were requested to participate in the research study. Two of these executives sent an apology and requested to be excluded from participation due to work commitments. However, the researcher contacted them afterwards to schedule a new appointment for the interview and they agreed to re-schedule and postpone their new interviews to one week later.

5.5.4 *Research Instrument*

The Appendix captures the list of questions used for the actual study. The researcher has developed these questions to explore the conceptual model variables. The interview questions consisted of 18 questions, which were revised and reviewed during the pre-pilot and pilot studies. During the interview, the researcher followed the funnel approach by asking general questions and move forward with more specific questions. The interview questions focused on exploring the participants' perceptions about knowledge management, KM practices, senior executives' involvement in driving change, organisations' challenges in adopting KM practices, and the role of the organisational culture in adopting KM practices.

The researcher deployed the suggested recommendations of McNamara (2009) during the design and structuring of the interviews questions, by maintaining the following recommendations:

- using the open-ended wording to allow participants to freely express their opinions when answering the questions
- ensure that the questions were as neutral as possible to avoid influencing participants
- putting the interview questions to each participant one at a time
- reviewing the questions with other PhD level researchers to ensure that they were worded clearly

The following section elaborates the study sample procedure carried out by the researcher after the pilot study exercise.

5.5.5 *Actual Study Interviews (study sample)*

The sample study participants in this research were 17 participants, distributed as follows: the researcher interviewed five persons in top management, six persons in middle management and six in operation management.

Table 18 Research participants' demographical data

Participants Position	Age Range	Gender	Positions Hierarchy	Public Sector of Experience
Executive Director	40-50	Male	Top management	13 years
Executive Manager	30-40	Female	Middle management	11 years
Operational Manager	30-40	Female	Operation management	12 years
Business Development Division Manager	20-30	Female	Middle management	7 years
Strategy Division Manager	30-40	Male	Top management	18 years
HR Division Manager	30-40	Male	Top management	9 years
Senior Operational Manager	30-40	Female	Operation management	10 years
General Services Division Manager	20-30	Male	Top management	5 years
School Administration Division Manager	20-30	Male	Middle management	8 years
Customer Services Division Manager	30-40	Male	Middle management	6years
Finance Division Manager	40-50	Female	Top management	12 years
Procurement & Contract Management Manager	30-40	Male	Middle management	9 years
School Improvement Division Manager	30-40	Female	Operation management	8 years
Business Operations Manager	30-40	Male	Operation management	7 years
General Services Division Manager	20-30	Male	Operation management	5 years
Policy Planning & Performance Management Division Manager	40-50	Female	Middle Management	10 years
Labour Market Intelligence Division Manager	30-40	Male	Operation Management	8 years

The 17 interview participants' demographic is shown in table 10. Actual study participants were extracted during the interviews, which included information on their current position, age range, gender, education level, public sector, years of experience and the extent of experience. The study interview questions started with general questions about the organisation's KM, and then focused on specific questions on the four study variables (see

the interview questions listed in the Appendix). For reasons of privacy, the name of the participants and the organisation are disguised.

As can be seen from table 10, 30% of the participants were top management managers, 35% were from middle management managers and 35% were from operational level managers. 67% of the study participants have management responsibilities, which allowed the researcher to better understand the contrast between senior executive' role in driving KM practices adoption and reducing change inertia and organisational culture. In the next section, the researcher explains the initial contact and gaining access to the organisation and the study participants.

The 17 participants were interviewed in their offices so that the researcher could observe their daily management routines and practices. The researcher carried out the interview in person with each participant during a total period of one month during which she conducted one interview per day. The researcher asked permission to use a meeting room on the organisation's premises. This procedure was necessary to avoid any interruptions during the interview process and to make sure that the participants had a private and confidential setting to encourage them to express their opinions freely. The researcher found that the face-to-face interview format was helpful in allowing her to explore, discuss and clarify participants' answers to develop a deeper understanding of the research topic. The actual study interviews followed the same process as the pilot study preparation phase, which was explained in the previous sections. During the actual study interviews, the researcher asked the participants to describe their daily routines and tasks, rather than what they thought they should be doing. The researcher carried and conducted the interviews with all participants in Arabic. However, it is important to note that English terminology such as KM, organisations inertia, organisational culture was widely used during the interviews. Following that, the interviews were transcribed and annotated by the researcher. The Arabic transcriptions were then translated into English by the researcher. The translations were then checked and reviewed with another PhD student, who is bilingual and has studied and lived in the USA for seven

years, in order to provide a second review and feedback in the event that any modifications or corrections were required. This procedure helped the researcher to synthesise and reduce bias and improve the research reliability and validity. During this process, the researcher maintained and assured the privacy and confidentiality of interviews participants. By the end of each interview, the researcher expressed her appreciation for the interviews' participants for dedicating the time and the availability to meet her. She also asked if she could contact them in the future in the event that she needed any further information or clarification. Prior to the conduct of this interview, the researcher has submitted the consent form and ethics application Henley Business School Research Ethics Committee via email. The average length of the interviews was around one hour and all were recorded with a digital recording device. At the end of the interviews, four participants asked the researcher to provide them with a copy of the thesis after completion; the researcher promised to send them this upon completion of her degree.

5.6 Document Review

The review of documents is a research process or technique of gathering and reviewing documents either online or offline (printed documents) by the researcher without asking questions or interviewing participants.

The document review is similar to any other analytical method in qualitative research, where the researcher examines and interprets documents' data and information to identify further empirical knowledge that may support and validate his or her arguments, and other data collected from other sources such as interviews. The documents may include pure text or a combination of both text and images that have been produced by different sources with the researcher's intervention or influence. Coffey & Atkinson (1997, p. 47) refer to this as a "social facts", which means that these documents are already produced and commonly used in society. The researcher can use different document sources to support and validate his argument. Bowen indicates in his study the type of documents a researcher can use in his data

analysis: “they include advertisements; agendas, attendance registers, and minutes of meetings; manuals; background papers; books and brochures; diaries and journals; event programs (i.e., printed outlines); letters and memoranda; maps and charts; newspapers (clippings/articles); press releases; program proposals, application forms, and summaries; radio and television program scripts; organisational or institutional reports; survey data; and various public records. Scrapbooks and photo albums can also furnish documentary material for research purposes” (Bowen, 2009, p.27). Secondary data sources, like a variety of document types, can be used to improve the interpretation (both validity and strength) of primary data. In this study, the researcher employs a document review method to support the information collected during the interview with the study participants. The researcher employed this technique to review three types of documents published by different sources, including the organisation selected in this study, which included the organisation’s vision and mission, its website and its press release. The researcher analysed those documents in order to gain a deeper understanding of the organisation’s culture and contextual processes that may have influenced KM practice adoptions within the organisation, and also to validate the primary data analysis and interpretation. The researcher used Nvivo11 to analyse and integrate the information collected in the document review in order to support the study data analysis.

5.7 Thematic Analysis

Following the data collection, the researcher had to decide how to analyse the data, which made this a very important decision for any researcher. Eisenhardt (1989) and Yin (2015) argue that extracting compelling conclusions from the study interviews is one of the most important and hardest steps a researcher will take. Boyatzis has observed that thematic analysis is “not another qualitative method but a process that can be used with most, if not all, qualitative methods” (1998, p.4). The researcher decided to adopt the thematic analysis. This is an approach which uses qualitative data analysing and emphasises the theme, subjects,

pinpointing, examining and recording patterns within the collected data (Braun & Clarke, 2006). Following that, the researcher analysed interviews transcription and applied the thematic analysis, emphasising recording patterns through query, visualisation and applying experience-focused methodologies.

During the thematic analysis, the researcher applied three steps recommended by King and Horrocks (2010):

1. *First step*: Descriptive coding: this means that the researcher identifies the themes related to the data, addresses the research question and allocates descriptive codes across the transcripts of the interviews. This step is also known as the first-order theme
2. *Second step*: Interpretative coding: the researcher starts grouping together all the descriptive codes that share common patterns and build interpretative codes which contain common patterns. this step is also known as the second-order theme
3. *Third step*: the researcher aggregates dimensions, defines the interrelated themes, and identifies a number of characterising key concepts in the analysis of the themes of the first and second order.

Souitaris et al. (2007), and Pratt et al. (2006) have also suggested that, in addition to King and Horrock's three steps; the researcher should follow the following systematic techniques:

During the first step, the researcher should start with the open coding of the data for a deeper understanding and to gain familiarity with the subject. After applying the first step and identifying the concepts, the researcher should re-check the data to see which segments fit each category. Then, in the second step, the researcher will be able to recognise the consolidated data segment in more theoretical and abstract theme. In the third step the theoretical dimensions and connections are identified. Miles and Huberman (1994) also point to the importance of reading each interview several times and carrying the coding procedure one by one for each interview participant, and taking in consideration terms or phrases used by them during the interview.

During the analysis, the researcher recognised and combined all the similar codes into the first-order theme, applying the phrase and terms used by the participants whenever possible. The same procedure was employed in the same manner during coding process to achieve theoretical saturation; (Glaser & Strauss, 1967). At the same time with the development of the first-order theme, the researcher started recognising connections and relations between the themes that could lead her to develop a second-order theme.

Further, the researcher gathered all second-order themes into aggregate dimensions, which enabled her to develop a grounded conceptual framework to connect the various concepts that came out from the analysed data (Nag & Gioia, 2012). Based on the final results of the analysis, the researcher will develop a conceptual framework that explains the study phenomenon, extends existing knowledge and defines the limitations of the study propositions.

The transcripts data were coded following the three mentioned steps and developing the common themes (see figures 6 and 7).

In order to assess coding reliability, the researcher requested an external coder with a well-established qualitative research experience to review the coding processes. The few modification and recommendation were considered by the researcher after extensive discussions with the external coder.

King and Horrocks state that “it is not necessary to refer to every constituent code within each theme- especially the descriptive codes. Rather, you should focus on those that most strongly illustrate what the theme is covering, and which most effectively address your research question” (2010, p.165). Therefore, while writing the thematic analysis, the researcher described and discussed each theme in turn, referring to examples from the analysed data and quoting from the participants' phrases and terms to facilitate theme patterns. Furthermore, Symon and Cassell highlight that “whatever approach is taken, the use of direct quotes from the participants is essential. These should normally include both short quotes to aid the understanding of specific points of interpretation and more extensive passages, giving

readers a flavour of the original texts” (2012, p.446). Also, Braun and Clarke (2006) indicate that the aim of compiling the thematic analysis is to develop a narrative that communicates to the readers how the study finding has shed light on the issue at hand.

The 17 interviews in this study provide the readers with insightful narratives of the main themes that determine the factors affecting organisational inertia, organisation culture and senior executives’ skills and capabilities that enable KM practices adoption in a UAE public sector organisation. The following chapters explain the four main constructs that form the core of this study’s conceptual framework.

5.8 Summary

This chapter has presented the methodology used for this research. This research focuses on KM practices adoption in a UAE public sector organisation, and has employed interviews as the research methods with participants from a selected UAE public sector organisation. Interviews were conducted in person with 17 respondents at their offices. This chapter has also presented the challenges to data collection and the efforts used to overcome these challenges. Data analysis techniques and profiles of the participants are also presented in this chapter as background for the findings of this research. The following chapter will present the findings from the data collection and data analysis.

6 DATA ANALYSIS AND FINDINGS

This chapter elaborates and presents the study's findings. The findings presented here are derived from the qualitative interviews conducted in a UAE public sector organisation. The interviews were carried with a total of 17 participants working at three organisation levels: top management, middle management, and operations management.

The interviews were the main source of data for this study in addition to other documents (see chapter 5) that were reviewed to develop a deeper understanding of the current state of KM in the study sample organisation.

6.1 Introduction

In this chapter, the researcher presents the research's findings and analysis of the relationship between organisational change inertia and KM practice adoption within a public sector organisation. This section also captures the impact of organisational culture and senior executives' skills and capabilities on the relationship between organisational inertia and KM practice adoption.

6.2 Data Coding

In this phase of the data analysis, the researcher focused on the total number of incidents that reflect action. The researcher has been careful during the coding process and read all the transcripts before initiating the nodes naming stage. The data analysis led to the creation of 26 codes that recognise 1,266 incidents which illustrate the nature of the relationships between organisational change inertia and internal KM practice adoption, and demonstrate the role of organisational culture and senior executives' skills and capabilities in reducing inertia.. See figures 6 and 7 below for the data coding and nodes grouping.

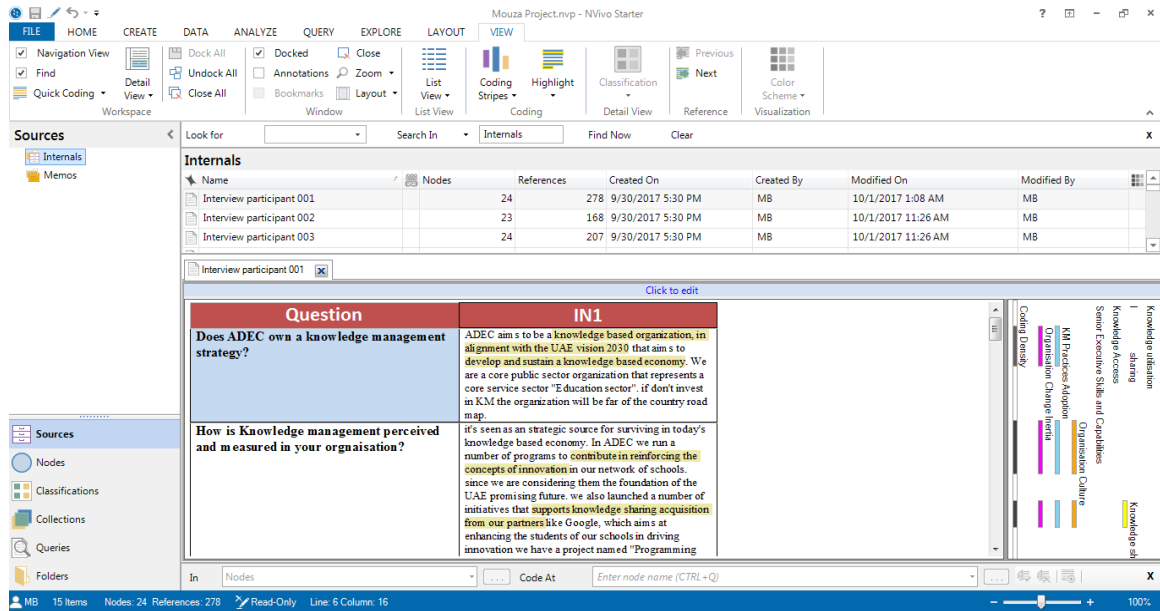


Figure 6 Transcripts data coding in Nvivo software

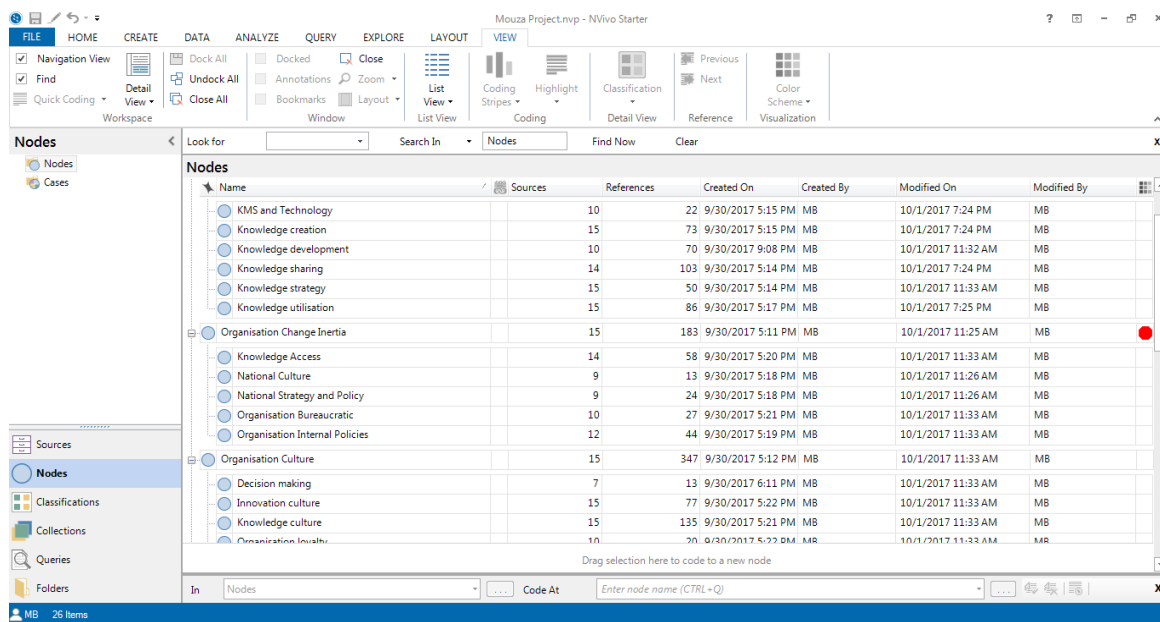


Figure 7 Data node coding in Nvivo software

These incidents were calculated with Nvivo11 software. The largest number of incidents documented in one interview was 278, while the smallest was 87. The average numbers of incidents for all the 17 interviews were around 168.8 incidents. Following that, the researcher categorised all incidents into four categories in relation to the study constraints. Table 11 represents the list of the categories and their related codes.

Table 19 Themes that emerged from the data analysis and the reported incidents

Nodes Concept/Themes	Number of Incidents
KM Practices Adoption	456
Knowledge creation	73
Knowledge development	70
KMS and technology	22
Knowledge sharing	103
Knowledge strategy	50
Knowledge utilisation	86
Organisational Change Inertia	183
Knowledge success	58
National culture	13
National strategy and policy	24
Organisational Bureaucracy	27
Organisation Internal Policies	44
Organisational Culture	347
Decision making	13
Innovation culture	77
Knowledge culture	135
Organisation loyalty	20
Social context and employees relationship	51
Senior Executives' Skills and Capabilities	359
Driving change	54
Encouragement	56
Involvement	99
Rewarding and motivating	22
Trust building	70

The researcher then grouped the above concepts into four categories related to the study propositions. See table 12 below which presents nodes categorisation and groupings.

Table 20 Nodes categorisation (themes) and groupings

Nodes categorisation/themes	Number of incidents
KM practices adoption	456
Organisational change inertia	183
Organisational culture	347
Senior executives' skills and capabilities	359

Following that, the researcher started by defining the relationship between the nodes and their related category, using both deductive and inductive thinking methods in order to find the connections among them. The researcher used the Nvivo11 software during this step, using the software features to run a word frequency query, node tree and tag cloud, and to support her in structuring her thinking during the connections definitions. See the figure 8, figure 9 and table 13 for the word frequency.

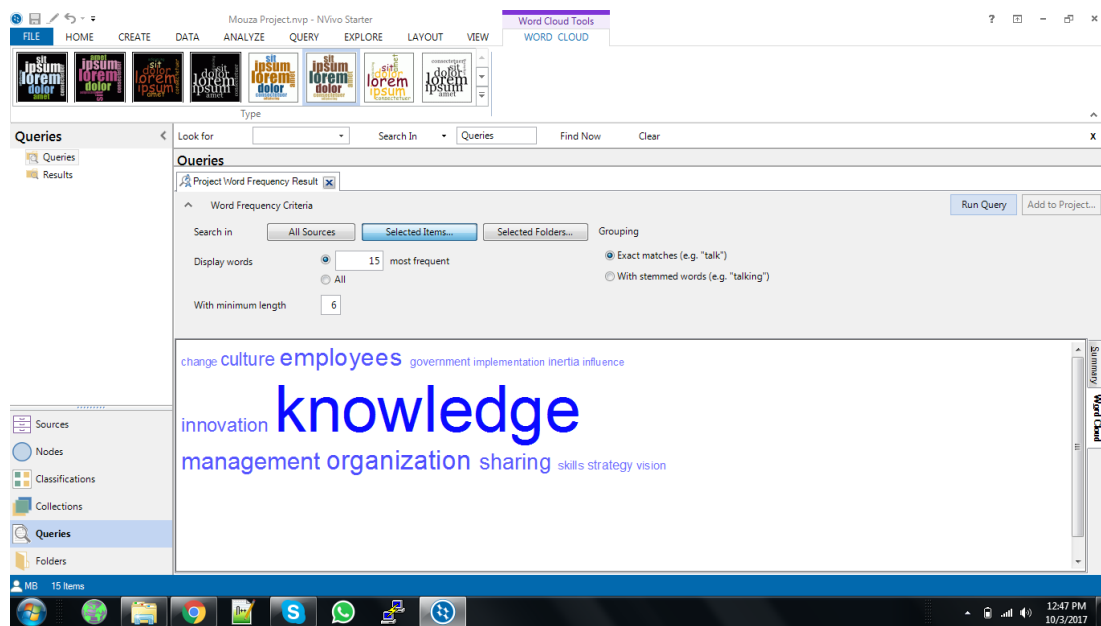


Figure 8 Word frequency query by Nvivo software screenshot

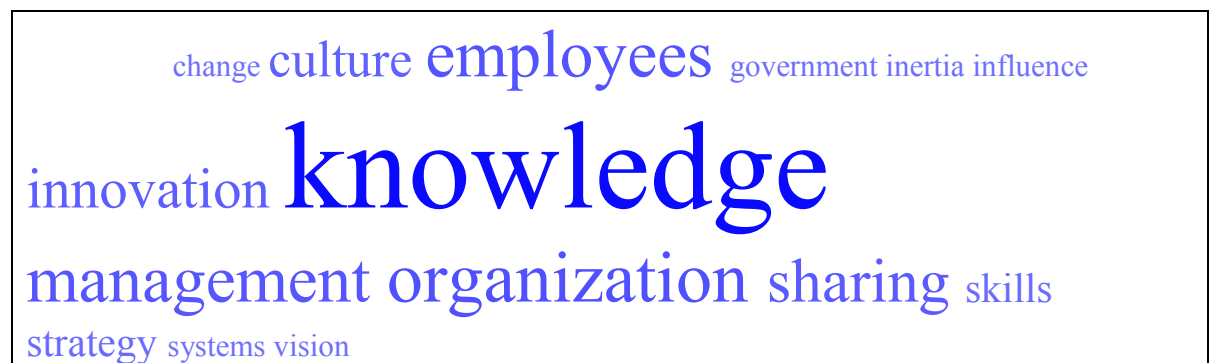


Figure 9 Wordle of interview transcripts

Table 21 Words frequency and weight by Nvivo software

Word	Length	Count	Weighted Percentage (%)
knowledge	9	2758	11.35
organisation	12	866	3.56
employees	9	798	3.28
management	10	702	2.89
sharing	7	612	2.52
innovation	10	493	2.03
culture	7	414	1.70
strategy	8	163	0.67
skills	6	160	0.66
government	10	93	0.38
vision	6	93	0.38
inertia	7	91	0.37
change	6	69	0.28
influence	9	60	0.25
systems	7	60	0.25

Nvivo11 can be used to support the researcher in defining a range of links between all the extracted nodes. For example, organisational inertia influenced by country national strategy and policy means that the organisation adopts the change faster in order to be in line with national strategy and policy.

At the end of this process, the researcher combined the 26 nodes in the four categories to support her in developing a conceptual framework that explains the relationship between the study's four constraints. Moreover, the study focuses on exploring the relationship between organisational inertia and KM practices adoption, as well as the impact of organisational culture and senior executives' skills and capabilities on this relationship. These four factors have a key role in enabling organisations' KM practices. In order to explore this role, we need to understand the nature of the organisation knowledge practices. Based on the data collected by the researcher from the study interviews, the KM practices adoption nature as a category involves the uppermost number 456 of incidents of those reported by all the interviews participants. This indicated that KM practices are considered important by the population being studied. The following sections present the findings of the analysis.

6.3 Analysis Findings

6.3.1 KM Practices Adoption

The main goal of this section is to present, examine and interpret data and patterns obtained from the interviews conducted on, and observation carried out of, the nature of KM practices adoption inside the public sector organisation.

456 incidents and seven knowledge management concepts emerged from the interview transcripts. These incidents are set out in Table (14).

Table 22 Categories and incidents under the KM practices adoption concept

Concept	No. of interviewees mentioning concept	No. of incidents (where concept is mentioned)
KM practices adoption	15	456
Knowledge creation	15	73
Knowledge development	10	70
KMS and technology	10	22
Knowledge sharing	14	103
Knowledge strategy	15	50
Knowledge utilisation	15	86

During the transcriptions of the interviews, the researcher defined 456 incidents mentioned by 17 participants. During the interviews, KM practices adoption was referred to by the respondents in different forms. The highest number of incidents was 103 referring to knowledge sharing as one of the most important KM practices adopting inside the organisation. Moreover, the following KM practices were also mentioned as follows: Knowledge creation was mentioned in all interviews and reported 73 incidents; knowledge development was mentioned in ten interviews and reported 70 incidents; KMS and technology was mentioned in ten interviews and reported 22 incidents; knowledge strategy was mentioned in all of the interviews and reported 50 incidents; and knowledge utilisation was mentioned in all interviews and reported 86 incidents.

In addition, all participants clearly stated that these factors should be given priority during the KM practices adoption processes. They explained that the organisation should focus on sharing knowledge, which will maintain the organisation's capacity to utilise this knowledge and develop and create new knowledge; they also referred to the organisation's KM strategy as a road map to cooperate with the national strategy and UAE Vision 2021. The participants also referred to the importance of the organisation's infrastructure and KMS in facilitating the organisation's access to knowledge. They highlighted the role of KM training to improve knowledge practices inside the organisation.

6.3.2 Factors influencing KM practices Adoption

6.3.2.1 Knowledge Creation

Knowledge creation comes from two sources: tacit and explicit (Nonaka, 1994). These sources primarily developed and emerged from the experiences and skills of the employees. Knowledge is a result of people's actions and experiences generated through doing new things, trying different ways or developing "know-how". An organisation where people work is considered the first place to create knowledge because people socially interact with and learn from one another. Nonaka points out that

"organisation is the primary place from which the knowledge creation process begins and represents the socialization phase. Physical, face to face experiences are the key to key to conversation and transfer of tacit knowledge" (1994, p.46)

However, knowledge does not always reside in an organisation; external knowledge is brought about in different ways, such as by consulting knowledge workers, and technology transfer and innovation. Public organisations need to foster the knowledge creation internally through a knowledge strategy, building and promoting a culture of knowledge, facilitating knowledge access and encouraging employees to share knowledge and innovate. During the interviews, many participants mentioned the importance of knowledge creation as a factor

impacting upon KM practice adoption; one top manager mentioned knowledge creation as source of developing his organisation's KM practices:

“I believe all organisations in public sector should follow the knowledge management practices adoptions, in [one] way or in another, for example you can find a knowledge database or repository in all the public sector organisations. This could be considered as knowledge management practice. In my opinion, we need to look to these practices from the bottom to top. Knowledge is not about building systems and sorting sets of data, it's more as a culture of creating knowledge to develop new knowledge, and utilising this new knowledge in solving problems and creating new knowledge. I don't want to have a system that sort data! Knowledge in [the] organisation should be like an infinite loop you where we create knowledge, share it, utilise it, and create new knowledge. This what I think about organisation KM practices to drive adoption and make me involve to learn new skills”.

Knowledge creation is seen as a KM practice that would keep evolving and feeding the organisation with new knowledge. The organisation should focus on creating new knowledge and motivating employees to adopt these KM practices so as to learn more and develop new skills and capabilities. Creating knowledge is mainly about solving problems, learning from successes and mistakes, conducting research and knowledge exchange with internal and external stakeholders. In such a situation, an environment of knowledge creation can be developed to support KM practices adoption.

6.3.2.2 Knowledge Development

Knowledge resources development was indicated by the participants as a factors impacting upon KM practices adoption. The participant refers to the importance of knowledge resources development role in supporting knowledge sharing, creation and adoption through developing new services and products. I quote from an interview with a manager where he highlights the role of the knowledge resources development;

“But before we talk about knowledge management practices, is important to develop our knowledge resources in term of people, processes, information and knowledge source. After that, we can seriously, about adopting the knowledge management

practices in my organisation. When you create or acquire a new knowledge, the next step is to use this knowledge to solve problems and deliver new services to [the] community. But, if your people are not ready, your system is not adequate, and you have no information flow or access, how do you think you [are] successful in adopting knowledge practices...can you tell me?"

Knowledge resources development inside organisations to support the KM practices and processes are highlighted by Probst et al. (2000) and Stein & Zwass (1995), who all point out that organisation should be able to store, retrieve and share its knowledge easily; the organisation should also ensure the availability of qualified people and technology infrastructure.

6.3.2.3 KMS and Technology

KMS and technology infrastructure were mentioned by all the participants as an important factor facilitating KM practices inside their organisation. They stated that KMS and technology can represent an open channel through which employees can share their knowledge with each other directly. Through this, knowledge senders and receivers share in the same occasion and have a social context for their interaction. Such an application permits audio and visual knowledge sharing between employees at the same time, which ultimately leads to the experience of greater cross-office knowledge sharing. This appeared in the following quote:

"We have these KMS that we use to updates it's on daily basis. KMS and technology play a good role in providing a fast knowledge response. We have this internal chat application, where we use it to ask each other and discuss on different daily tasks. This is really good and the data we have exchange in the application is stored these for future retrieving".

6.3.2.4 Knowledge Sharing

Knowledge sharing has an important influence on the success or failure of business sharing. Hence, bringing knowledge sharing into an organisation has become one of the hottest topics

of discussion in the business literature (Yeh et al., 2006). In order to ensure the success of knowledge sharing, it is vital to be able to acquire the key facilitators in order to make probably the effective utilisation of an organisation's limited resources, reduce the use of manpower, material and time, yet at the same time be able to accomplish the expected outcomes (ibid). In this regard, the participants also highlighted the importance of knowledge sharing as a driving factor of efficient KM practice adoptions inside their organisation. When asked if they thought that knowledge sharing is important for KM practices adoption, one manager pointed to the role of knowledge sharing:

“For sure, as I have said earlier knowledge sharing [is] important to employees to engage, and share their information, knowledge, with others, to guarantee a progress in the know experiences, skills, and of course this will be reflected at the organizational level through an enhanced knowledge base and performance”.

6.3.2.5 Knowledge Strategy

Scholars suggest that organisations build their knowledge strategy, define and understand knowledge, identify learning objectives and structure knowledge audit processes. The knowledge strategy should address all the knowledge practices, knowledge sources management and knowledge process that are used in driving the organisation performance and achieving their goals (Ramalingam, 2005; Zack, 1999; Liebeskind, 1996). Knowledge strategy was highlighted by the participants when they refer to the importance of having a clear plan for managing the organisation's KM. The following statement by top level manager points to the importance of KM in their organisation:

“We need to develop a clear strategy or a plan to deal with the organisation knowledge. This plan will serve of course in line of the government plans and aims. But I think we need a way to control and mentor all the related issues to the knowledge management on both side internally and externally”.

6.3.2.6 Knowledge Utilisation

Utilising knowledge through KM practices will support the public organisations in becoming more efficient, supporting decision makers in drawing their future strategies and developing a deeper understanding of surrounding environments. Wiig argued that it is important that public sector utilising their KM effectively to support their organisation driving forward and becoming smarter in serving their customers “the society to prosper and increase its viability by making its people and institutions work smarter” (2002, p. 238). In this regard, the participants pointed to it as necessity to fully utilise the KM comprehensively to enhance employees' capabilities and experiences. Knowledge utilisation was clearly identified by a manager in middle management role:

“I believe that our organisation utilises the captured knowledge of different sources, to support our strategy and planning office, in taking the proper decision, developing strategies, and indicating the challenges in our working field. But unfortunately these knowledge is openly accessed by all the organisation employees. I think reason behind that, is the organisational traditional mind-set, that still believe that any type of information inside a public sector organisation should remind confidential. The world is moving fast toward digitalisation, hence, we should be more flexible and improve information access to our employees to enhance their knowhow, and drive innovation inside the organisation”.

6.3.3 Organisational Change Inertia

With regard to organisational change inertia, participants pointed to a number of interesting points. The organisational change inertia category was mentioned by all participants and reported a total number of 224 incidents. Table 23 presents the number of incidents and the interviews emerged during the interview with all participants and asking them about the organisation change inertia.

Table 23 Categories and incidents under the organisational change inertia concept

Concept	No. of interviewees mentioning concept	No. of incidents (where concept is mentioned)
Organisation change inertia	15	224
Knowledge access	14	58
National culture	9	13
National strategy and policy	9	24
Organisational bureaucracy	10	27
Organisation internal policies	12	44

During the transcriptions of interviews, the researcher defined 224 incidents mentioned by 17 participants. Organisational inertia was referred by the interviewees in different terms and was perceived differently. They pointed to organisational inertia when referring to knowledge access difficulties due to the organisation’s internal policies and regulation as a public sector organisation. Knowledge access was mentioned by 14 participants and reported 58 incidents. They also pointed to organisational inertia as a result of the organisation’s bureaucratic policies and routines, which was specifically mentioned in ten interviews and reported in 27 incidents. However, they also mentioned that the organisation’s internal policies are changing and developing in line with the national culture and the government’s strategy and policy. This means that public sector organisations will abide by the national culture and government policies. If the government reforms its policy to become knowledge-oriented, all public sector organisation will be forced to drive the change in line with these new policy, such as the UAE 2021 Vision of a knowledge economy. National culture was mentioned in nine interviews and reported 13 incidents, national strategy and policy was mentioned in nine interviews and reported 24 incidents, knowledge development was mentioned in ten interviews and reported 70 incidents, organisational bureaucracy was mentioned in ten interviews and reported 27 incidents, and the organisation’s internal policies were mentioned in 12 interviews and reported 44 incidents. The participants clearly pointed to organisational inertia as a barrier to knowledge sharing, accessing and utilisation, which makes it harder for

them to innovate and improve the organisation's efficiency. Therefore, they recommend reform of the national culture and the governments' national strategy and policies which will be reflected in the organisation's bureaucracy and internal policies, and will drive the change internally.

6.3.4 Factors impacting upon Organisational Change Inertia

6.3.4.1 Knowledge Access

Knowledge access reduces the level of organisational inertia; the more the public sector organisation fosters knowledge access, the more employees will move towards the KM practices adoption. However, the research participants illustrated that public sector employees usually resist change to protect their authority. In most cases, this authority prevents other employees from accessing the necessary knowledge to innovate and drive value in the organisation, thereby reinforcing change inertia.. In this context, a participant from the operational management level pointed to the importance of knowledge access in driving change across management levels and improving managers' ability to lead change:

“I think, the more the organisation facilitates knowledge and data access, the more we will be able to lead change internally. But the problem that in the government organisations it's not easy to access all the information that you may need due to the internal policies and regulations that are following the higher government instructions...”

6.3.4.2 National Culture

The national culture fosters organisational change; public sector organisational culture is a replica of the national culture. If the national culture fosters knowledge-based organisations, then public sector organisations will adopt the same culture, which minimises organisational inertia and supports KM practices adoption. In this regard, a top management executive points to the role of the national culture in driving change:

“...there [are] many challenges facing us when we drive change inside the organisation for example, our culture is based on the government national culture, you will cannot drive change inside a public sector organisation, because our culture represents a small part of the whole government culture, which by the way oblige us to align our internal routines and processes with it. So, I believe if you really want to change a public sector organisation, you will need to start from the head. I mean to start from the top government hierarchy, if the national culture will have focused on implementing knowledge like for example UAE Vision 2020, then the change at the bottom of the government hierarchy will be easier”.

6.3.4.3 National Strategy and Policy

The government’s national strategy, such as the UAE 2021 Vision, represents a nation-wide strategy and policy reform on various country-level sectors. The existence of such a strategy compels public sector organisations to direct their resources to achieve the objectives laid out in the UAE 2021 Vision. The national strategy includes key performance indicators (KPIs) on reporting and monitoring of targeted objectives, thus public sector organisations can facilitate their employees to achieve these KPIs and objectives. During the interviews, the participants referred to the influence of the current UAE strategy of "UAE Vision 2020" in driving some degree of change at the level of their internal organisational strategy. This was pointed to clearly in the following top-level manager statement;

"...I would say that our organisation is giving a great attention to knowledge management in general. You can see this by the number of the training and development programs that we have developed in partnerships with an internal and external partners. Also the employees' rotation strategy that we have deployed over the past years, helps our employees to access to different levels of information and knowhow. There was also an obvious impact from the UAE national strategy 2020 that aims to build and develop knowledge-based organisations in the public sector,

therefore we had to revise our internal strategies to be in line with government vision. Usually, when you work in a public sector organisation, your strategy policies, and regulation must be according to one adopted by your government. I think that in the upcoming years the UAE government strategies will be centred around innovation, knowledge management, Big data, and information technology. We will then revise all of our internal strategies to contribute toward their objectives and future goals”.

6.3.4.4 Organisational Bureaucracy

An organisation’s bureaucratic procedures permit organisational inertia, as explained in the literature review. The public sector organisation should focus on minimising bureaucratic procedures and facilitate more flexibility in terms of knowledge access, decision making and authority delegation. The organisation’s decision centrality and bureaucratic procedures were mentioned by one of the operational level managers, when he said that:

“[We have] many challenges, listen, we work in a public sector organisation, and like any other organisation in this sector, there is a centralisation in decision making and processes change approvals., I just can't change an internal policy permission from my higher management. If it happened to request a change, this may take months till the decision-makers meet, discuss, the request and approve it or reject it. I think if we would have less bureaucratic procedures and processes, driving change would be easier, and higher level of knowledge practices will be adopted. Knowledge drive change for a better and easier ways of doing things, this will require change at different level of the organisation processes”.

6.3.4.5 Organisation Internal Policies

Under the same aspect of organisational bureaucracy, an organisation’s internal policies should focus on promoting knowledge and encouraging the employees to take the initiative to adopt KM practices. The internal policies should also promote social trust, knowledge and

innovation. In this regard, I cite what one middle manager said regarding the organisation's internal policies:

“it is the human nature. People always trying to keep their knowledge for themselves. Another challenge is the data access, you know, we are a public organization following standard operating procedure for data security reasons. Also, i think a challenge may be being how the people perceived the knowledge inside their organization. I think upgrading our internal policies at the level of knowledge access and building new policies to improve the use of knowledge would solve this problems”.

6.3.5 Organisational Culture

The third study variable is organisational culture and its role in reducing the impact of organisational inertia and delivering the successful implementation of KM practices. Organisational culture was specifically and frequently mentioned in all of the participants' interviews as knowledge culture and innovation culture. Some participants referred to public sector organisational culture in terms of the centralisation of decision-making, a culture that hampers delegation of authority. The participants also point to how internal organisational culture impacts the social context and employees' relationship, as well as their loyalty toward their organisation. In fact, organisational culture was mentioned in all of the 17 interviews and reported 347 incidents. Knowledge culture was also mentioned in all of the interviews and reported 135 incidents. Innovation culture was mentioned in all of the interviews and reported 77 incidents. The social context and employees' relationship was only mentioned in 14 interviews and reported a total of 51 incidents. Decision-making was mentioned in seven interviews covering 13 incidents, and organisational loyalty was reported in ten interviews covering 20 incidents, see table 16.

Table 24 Categories and incidents under the organisation culture concept

Concept	No. of interviewees mentioning concept	No. of incidents
Organisational culture	15	347
Decision-making	7	13
Innovation culture	15	77
Knowledge culture	15	135
Organisation loyalty	10	20
Social context and employees' relationship	14	51

6.3.6 Factors impacting upon Organisational Culture

6.3.6.1 Decision Making

The public sector's organisational culture places emphasis on controlling the decision-making process, which impacts the level of knowledge access, information flow, and organisational change. The decision-making processes was mentioned by participants during the interviews; they referred to authority structure which they needed to follow in order to take a decision. They thus believed that decision-making impacts upon the success of KM practices adoption and increases organisational inertia in terms of what information should be shared or accessed. In this regard, Handzic and Agahari (2004) point to the same issue in the public sector's command and control structure and its role in impeding the free flow of information. This was clearly pointed to in the following statement from a manager:

“KM practices and initiatives suffers from the internal authority of decision making, we would love to share knowledge with every one, inside and outside our organisation. But unfortunately, we can't take the decision as manager, since we have to follow long processes of permission requests when we decide to share some information. For example, this interview, how much time you had to wait, and how many responses to your interview invitation. People get affright when you asking them to share information, because they don't have the authority to decide if they can

share information without permission. I think the private sector is more flexible in this regard. I wish this will change soon with your research”.

6.3.6.2 Innovation Culture

The interviews referred to innovation culture as a facilitator of knowledge practices and a driver of change. However, the participants pointed out that when developing a culture of innovation, the public sector organisation should give up authority control and become more flexible in terms of decision-making processes.

The academic literature emphasises this point. Bommert emphasises that “the opening of the innovation cycle requires the government to give up or share its authority to define the public value of innovations. This transfer of authority raises issues of accountability in a constitutional system where those who have the authority are also held accountable. In order to solve these issues government needs to develop the capacity to make the trade-off between authority and innovation assets and establish a system of reciprocal accountability” (2010, p.29). Innovation culture was cited by one of the top-level managers:

“We utilise our knowledge in driving the organisation innovation wheel forward, managers were asked on different occasions to spread the culture of innovation and involving their employees in driving innovation forward, by using knowledge and technology. For example, we have developed [an] internal system [where] our employees can share their suggestions and ideas, that would serve the organisation to progress innovation. If the employee idea was valid he will be recognized internally by sharing his achievement across the organisation, and he will be rewarded in our yearly employee's social event. This procedure come as responding to our government vision 2020 to encourage the innovation culture inside the public sector organisations. All seniors at all the organisation management levels are requested to

promote, encourage and support any individual or team initiatives that would drive value to our public sector services”.

6.3.6.3 Knowledge Culture

The public sector should focus on building a KM culture within its organisations to promote KM practices adoption as part of organisational culture. The following remark by a middle manager indicates this point well:

“In our daily work, there is many paperwork that we need to deal with. Therefore, asking us other tasks like sharing knowledge, or attending knowledge management training inside or outside the organization is perceived as an extra duty that we need to handle. However, if the organisation prompted KM as part of our internal culture, the employees' perception will totally change”.

6.3.6.4 Social Context and Employees' relationship

The interviews highlighted that having team members who are well connected, can develop and maintain the social context between different employees and can strength their interrelationship is crucial for effective KM practices adoption such as knowledge sharing.

The following quote by one top manager is instructive:

“People share with their experiences, and know-how with others, if they have strong social ties between each other. They share because they are socially connected and they have good relationship”.

6.3.6.5 Organisation Loyalty

The participants have pointed to the role of the organisation in promoting organisational loyalty among employees in order to adopt KM practices. This was self-evident from the following quote from one the managers interviewed:

“We need to develop a culture that promotes the organisation loyalty, if we managed to promote this loyalty among the organisation employees. I'm sure that all of them

will response positively to any initiative that they perceive as contributing to the organization’s overall mission, and not only the KM practices. Organisation loyalty is very important if we want to drive change”.

6.3.7 Senior Executives’ Skills and Capabilities

The last study variable investigated is the senior executives’ skills and capabilities and their role in changing organisational culture, minimising inertia and delivering successful KM practices adoption. All the participants agreed that the senior executive holds great authority in the public sector organisation and, therefore, their role is crucial in driving change, adopting new practises and reducing change inertia. Senior executives’ skills and capabilities reported 359 incidents – the highest number after KM practises adoption – which were divided between driving change, encouragement, involvement, rewarding and motivating and building trust. The following table presents the number of incidents that emerged during the interviews, where all participants were asked about the role of the senior executives’ skills and capabilities in relation to KM practices adoption and organisational inertia, see table 25 below:

Table 25 Categories and incidents under the senior executives’ skills and capabilities concept

Concept	No. of mentions in interview	No. of incidents
Senior executives’ skills and capabilities	15	359
Drive change	14	54
Encouragement	14	56
Involvement	15	99
Rewarding and motivating	10	22
Trust building	15	70

All the participants pointed out that senior executives play a key role in driving change through organisational culture, promoting KM practices adoption and reducing change inertia. However, they also highlighted their role in motivating and encouraging employees to share knowledge, in giving employees’ authority to make decisions and in facilitating knowledge access.

The participants also suggested that senior executives should build trust between employees and their organisation, and enable organisational loyalty by involving employees in decision-making and future plans and rewarding them for adopting KM practices and sharing knowledge within the organisation.

6.3.8 *Factors impacting Senior Executives' Skills and Capabilities*

6.3.8.1 Drive Change

The analysis of interview transcripts recommends that senior executives focus on driving internal change toward the effective adoption KM practises. The participants had this perception due to that fact that senior executives in the public sector have the authority and power to change things at different levels such as information access and flow, decision-making flexibility and decision-making in which employees should be involved. The academic literature lends support to these perceptions. Researchers emphasise the role of top management support and commitment to make enduring change, and how an organisation's individuals must adopt this new change, policy or innovation in their daily routines in order to drive successful change (Burke, 2011). In response to this point, a top-level manager highlights the following:

“It's not matter, either you where a senior manager or not, driving change inside our organisation will always follow the laws and the procedures of the government regulation framework, we can only force a change in line with these policies and procedures. I think, our involvement in change will always be limited to the government framework and strategic visions, we cannot break rules and drive distributive change without permission, we are not a private sector organisation. But, of course, as top management, we play an important role in driving change among our teams for d efficiency, and innovation, through encouragement, punishment, motivation, and recognition. However, driving change will always remains in the boundries of the public sector formal rules and procedures. You should ask the policy

makers to drive change at the level of the general regulation so we can drive it forward”.

6.3.8.2 Encouragement

The analysis of interview transcripts clarified that most managers encourage employees to adopt KM practices through actively participating in knowledge sharing and KM initiatives. Hence, encouragement to share knowledge with other workers not only enables employees to create new knowledge but also allows them to adequately adopt a new culture toward the organisation’s knowledge. This approach in turn drives them to adopt KM practices within the organisation. Referring to this point, a middle manager underline:

“The senior executive should encourage our organisation people to share knowledge, they can even measure it, by how much, and how often I have contributed to the organisation's knowledge base or even at the level of my team, and then factor it into my yearly performance evaluations”.

6.3.8.3 Involvement

Senior executives should work more on involving the organisation’s employees in decisions related to knowledge initiatives to make sure that all employees will adopt the proposed knowledge initiative because they were part of it. This was cited during an interview with an operation level manager:

“I believe that the senior executive should work more on involving us in the decisions related to KM strategies and project[s]. They can ask their management team to develop a chain of communication between us and them, so we can contribute with suggestions and ideas to improve the initiative and they will be sure that the decision is made as a collective expression of what all parties think” .

6.3.8.4 Motivation

Motivation gives an immediate need satisfaction (Fontana and Frey, 2000). The interviewees stressed the role of senior executives in motivating employees to facilitate the generation and transfer of tacit knowledge, and in contributing to the organisation's KM practices. This was raised by one of the managers interviewed:

“I think the executives should focus on motivating their management teams, and employees to exchange knowledge and adopting the best KM practices inside the organisation” .

6.3.8.5 Trust

During the interviews, the researcher found that participants referred to trust-building as a key task of the senior executives. The employees who adopted KM practices such knowledge sharing needed to build a high level of trust on two levels: firstly with the employees working at the same level as them and, secondly, with the senior executives. With regard to the latter level of trust, employees will build their trust based on action not promises. One interviewee mentioned the following:

“I will share knowledge only with the people and the colleagues I trust, and I have been working with them since a long time. I will not share it with the new joiner. The senior executive they always ask us to share our experiences and to work as one team. But in today competitive job marketplace, you only keep your position because of what you know, not because you share your knowledge”.

6.3.9 Document Reviews

The researcher has selected three types of documents to examine as a secondary source of data: the organisation vision and mission, its website and its press release. Up until this data analysis, the researcher was not able to find one word referring to knowledge, knowledge management or knowledge economy within the organisation's vision. Following that, the researcher scanned the organisation's website and browsed through all the sections of the

website. The researcher was able to identify different initiatives and action terms that were referring to knowledge management practices. For example, in the website research section the organisation reported the following statement: “conduct research and manage outsourced research projects to assist our organisation in making informed decisions and policies”. This statement points to how the organisation utilises research as a source of obtaining new knowledge in the decision- and policy- making process.⁴ The researcher also points to two other statements under the partnerships section which referred to role of global partnerships in driving new knowledge to the organisation. This was clearly mentioned on the organisation’s website – “transferring the best knowledge in different fields of expertise” – and was supported with a global partnership vision statement of “develop strategic, effective and sustainable partnerships in education and enterprise development to drive Abu Dhabi’s knowledge-based capacity requirements”. Following that, the researcher used the website search option, and only 25 words frequency of the terms (knowledge, knowledge management and knowledge-based organisation). Despite this low frequency in the number of words, the researcher found under the section “Get To Know Us” that the organisation has established a Knowledge Management division under the Office of Planning and Strategic Affairs. The Knowledge Management Division states that it “is responsible for establishing business intelligence capabilities and supporting senior decision-makers with real-time data analysis, geospatial analysis and future forecasts”. The knowledge management only supports the senior decision-makers and nothing was mentioned about knowledge access at the level of operational employees. The researcher believes that this office is a result of responding to the UAE Vision 2020 to develop knowledge-based organisations. Finally, the researcher has explored the organisation’s press release database section on the organisation’s website and used the filter option to locate the press releases referring to knowledge management and found that only one organisation’s press release refers to the role of knowledge management

⁴ Please visit our publications page to know more.

in driving innovation, in an article related to launching new initiative by the organisation to promote innovation among education stakeholders.

The results of the document analysis validate the participants' qualitative data analysis, and points to a poor deployment of KM practices inside the organisation at all levels. The public sector's decision centrality and traditional bureaucracy may influence the agility of change inside the public sector organisations, unless there are clear policies and strategies at the national level that would foster this change.

6.4 Summary

The main aim of this study was to explore organisational change inertia impact on KM practices adoption in public sector organisations, as well as the role of both organisational culture and senior executives' skills and capabilities in reducing the impact of organisational inertia to successfully drive the adoption of KM practices.

This aim was achieved by conducting and analysing a literature review, followed by exploratory research with thematic analysis of 17 interviews from a UAE public sector organisation to identify which variables impact upon KM practices adoption. A set of four strong coded themes relating to these variables were identified in a conceptual framework. Based on the thematic analysis and the literature review, the researcher proposes a list of variables that impact KM practices adoption in public sector organisations.

7 DISCUSSION

In this chapter, the researcher summarises the study's results, conclusions contributions to both the academic literature and educational practitioners, discusses the study's implications and limitations and makes recommendations for further areas of research. Figure 10 below represents the steps that have been used by the researcher during this study.

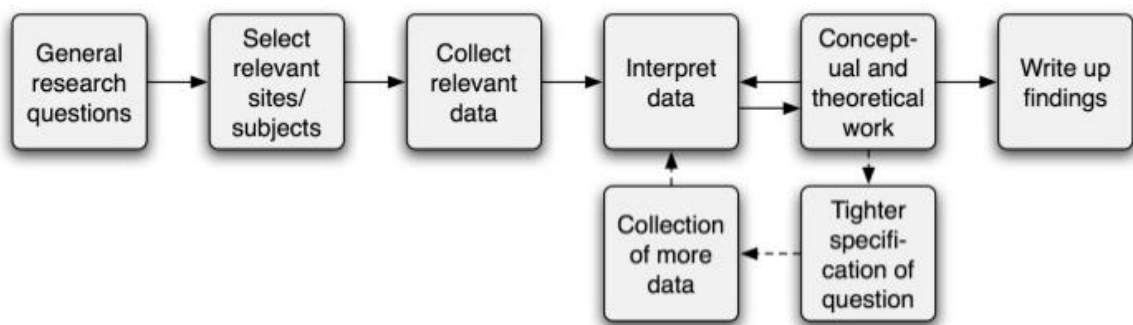


Figure 10 The research steps followed by the researcher in this study

The researcher has carried interviews with 17 senior participants of three organisation management levels: top management, middle management, and operational management. The interviews were all conducted in a UAE public sector organisation setting during a one-month period. This study has applied the qualitative research method and thematic analysis to explore and develop a deep understanding of KM practices adoption in UAE public sector organisations. In the research data analysis, the researcher has identified a list of factors that influence organisations with regard to organisational change inertia and KM practices adoption. In addition, the research was able to define three levels of literature contributions: theoretical, managerial and policy change. In this section, the researcher also points to the study's limitation and recommends other research to further investigate this field with a wider study sample and considering other variables. Finally, the study results indicate that the organisational inertia is a result of the traditional public sector bureaucracy, which has been

established with the objective of sustaining transparency and standard operating procedures that would drive quality and efficiency. However, the growing demand for the public sector in today's digital world is challenging the bureaucratic fabric of public sector organisations, who are expected to be agile, responsive and knowledge practice adopters. Summary of Research Findings

This research has attempted to identify and explore the variables that impact KM practices adoption by using both organisational culture and senior executives' skills and capabilities to reduce the impact of change inertia over KM practices adoption in a public sector organisation in the UAE.

To support the public sector management in identifying the best practices and variables needed to drive successful KM practices adoption, the study focused on organisational change inertia, perceived barriers of successful KM practices adoption inside public sector organisations and the perceived importance of organisational culture and senior executives' skills and capabilities in reducing inertia.

This section elaborates the key results of the research in keeping with the study's objectives. The first objective was to "develop an initial conceptual model for examining how organisational inertia impacts the knowledge practices adoption inside the public sector organisation, based on an investigation of the KM literature gaps". Theories, the relevant literature and prior studies were reviewed which summarised the main topics of the study regarding organisational inertia in relation to KM practices adoption in the public sector.

The literature review indicates the problem of KM in public sector and the role of bureaucratic management inside public sector organisations, pointing to change inertia as a barrier to change in these organisations. The review suggests the need for a more concentrated research and consideration of factors that would reduce the impact of change inertia on KM practices adoption in public sector organisations, such as organisational

culture and the role of senior managers and executives in changing the public sector's bureaucratic culture

Reaching the first objective of the study helped the researcher to achieve the research objectives, to answer the research questions by highlighting the relevant literature reviews, to analyse the implicit relations of change inertia in relation to KM practices in the public sector, and to explore explicit suggestions and recommendations for further research, continuing what other researchers have begun and not repeating their prior work. Moreover, the researcher has provided additional insights and developed new research framework, to provide a proper answer to the study's questions and objectives.

In addition, the researcher has used various research techniques in this study to support her in answering the research question and related research objectives. The qualitative methods approach was adopted, bringing together pilot study and actual study semi-structured interviews.

Following that, the researcher addresses the second research objective of to "investigate the role of both organisations' culture, and senior executives' skills and capabilities in driving knowledge practices adoption and reducing public sector organisation's change inertia".

The researcher identified the main themes related to the factors that improve KM adoption practices and those that reduce organisations change inertia; The literature review suggests that the senior drives change and improves organisational culture. The empirical study also indicates the impacts and the relationship between both factors which were perceived during the interviews with the participants of the actual study, and confirmed during the thematic analysis under the four themes identified.

The third objective was to "empirically examine the relationships between organisational inertia and KM practices adoption in the public sector organisation's context". An empirical study was proposed to explain the overall relationships between these factors. It is comprised of a pilot and actual study, where eight semi-structured interviews were conducted during the

pilot study and 17 other interviews were conducted during the actual study to empirically examine the relationship between the aforementioned factors that reduce organisational inertia and improve KM adoption practices in UAE public sector organisations

The researcher identified the main themes related to the factors that improve KM adoption practices and those that reduce organisational inertia, which were identified in the thematic analysis and summarised in the study conceptual framework (Figure 2), comprising four core constraints.

In the first dimension of, knowledge management practices, six themes were identified: knowledge creation, knowledge development, knowledge sharing, knowledge strategy, knowledge utilisation, and KMS and technology.

In the second dimension of organisational change inertia, five themes were identified: knowledge success, national culture, national strategy and policy, organisation bureaucracy and the organisation's internal policies.

In the third dimension of organisational culture, the five themes were: decision-making, innovation culture, knowledge culture, organisational loyalty and social context and employees' relationship.

In the fourth dimension of senior executives' skills and capabilities, the themes identified were: driving change, encouragement, involvement, trust building, rewarding and motivation.

7.1 Study Contribution

This DBA thesis aims to explore the impact of the public sector organisations' change inertia on KM practices adoption, and how both organisational culture and senior executives' skills and competencies extract a moderating effect on this relationship. The researcher was able to highlights various factors that impact upon the research variables. The researcher has constructed his judgements, conclusions and recommendation based on the existing body of

literature, qualitative data analysis and documents reviews. The researcher argues that this study contributes to the following areas.

7.1.1 Theoretical Contributions

The outcomes of this research present a number of important theoretical contributions. Firstly, this study investigated a conceptual model that applies a relationship between organisational change inertia and KM practices adoption, moderated with the impact of both national culture and senior executives' skills and competencies in public sector organisations setting in under-developed country. The researcher succeeds in combining wider variables that affect the successful KM practices adoption inside public sector organisations in one model. For example, organisational change inertia in the public sector is perceived as a result of the public sector bureaucracy and authority bounded by the rules and procedures of the organisation. Change inertia would be hampered by developing a national culture, strategy and policy aimed at developing knowledge-based organisations. It is evident from the results that public sector organisations always follow higher authority directions. Hence changing organisational inertia can be achieved by changing the government's national strategy, which will oblige the organisation to change their culture and procedures to abide by the new rules. Moreover, the results suggest that despite the skills and competencies of senior executives, their practices will always follow the organisation rules and procedures. However, driving change by senior executives is possible if this new change is required by a new rule or new procedures.

Therefore, the results of this research extend a deeper understanding of the organisational change inertia in the public sector and the successful adoption of KM practices, and demonstrate that the concept of organisational inertia is also related to external factors, such as the government national culture, and national strategy and policies, and that driving change in public sector organisations is not only related to internal factors.

Secondly, the research contributes to our understanding of KM practices adoption in the public sector, by examining and incorporating literature from several disciplines, such as public policy, organisational behaviours and leadership. While exploring the literature, the researcher was able to conclude that there is a wide body of literature discussing the impact of organisational inertia on knowledge management. There is thus a gap in the literature review on the organisational inertia, culture and senior executives' skills and competencies impact the adoption of KM practices. Even though there are different studies highlighting the separate impacts of variables on KM practices adoption – e.g. inertia, organisational culture and senior executives' skills and competencies – there has been no previous study to date that examines all those variables together and explores the mutual reliance between them to deliver success KM practices adoption in public sector.

Thirdly, this research identifies a list of factors that impacts the variables used in this study. This is considered an important contribution to the academic literature on organisational change inertia and KM practices, which will support other researchers in exploring new ways to improve KM practices adoptions in public sector organisations.

Fourthly, the conceptual framework in this study is tested in a public sector organisation setting in a developing GCC country. This distinguishes the research from existing empirical work by examining a wider range of variables that impact upon KM practices adoption in public sector organisations. Moreover, the results obtained are considered to be original contribution to the study fields of KM practices adoptions, organisational change inertia, organisational culture and senior executives' skills and competencies, especially as this study was carried out developing country setting in a GCC country.

7.1.2 Managerial Contributions

The outcomes of this research have many contributions for the different organisational stakeholders, such as frontline employees, operational management, middle management, top management, government policymakers, change management professionals, KM consultants

and practitioners, as is discussed below. The novel concepts of KM practices adoption in organisations and its value (e.g. driving efficiency, reducing cost, driving innovation, developing products, improving services, facilitating knowledge access, enhancing employees “know-how” and experiences) is forcing public sector organisations to invest considerable funds into knowledge technology, knowledge training and development to drive and maintain successful KM practices adoption with a view to developing responsive knowledge-based organisations. But these investments and initiatives were always hampered down by public sector organisations’ change inertia.

Given the large investment from the public sector to develop and perfect the successful adoption of KM practices, an understanding of the variables affecting public sector KM practices adoption is useful so that public sector decision-makers can prioritise their resources efficiently. For instance, it was found that organisational change inertia is a result of the government national culture, national strategy and policy which represent the base of public sector organisations’ internal policies and bureaucratic procedures. Hence, to reduce organisational inertia, greater change should be adopted at the level of the government national culture, national strategy and policy which will oblige the public sector organisation to develop new policies and procedures in line with the government’s new culture. This requires government policymakers to take into consideration KM practices as sources of efficiency and value, at the time as they draw their future visions and plans for the public sector.

Moreover, organisational culture should build loyalty and develop a favourable social context to support the employees’ relationships, which were also found to have a significant impact on KM practices adoption in public sector organisations. The employees will share knowledge when they feel part of a community that shares the same goals and objectives in a highly connected social environment, which promotes trust, encouragement, innovation and a culture of knowledge. However, these factors depend on the level of facilitated knowledge

access and the organisational culture. Therefore, the study advises the public sector organisation to develop a favourable environment that encourages knowledge and innovation facilitates knowledge access enables employees at all levels to utilise their knowledge resources and trusts them to maintain their loyalty and knowledge contributions. Hence, change management professionals, KM consultants and practitioners should take into consideration the importance of the organisational social context development and knowledge culture to deliver innovation and sustain loyalty among public sector employees and foster them to effectively adopt KM practices.

The study's findings also indicate that senior executives' skills and competencies are a cornerstone in enabling change in the public sector organisations. They are the drivers of change, by means of encouraging and involving employees. Senior executives can maintain organisational loyalty by building trust among employees at the various management levels. Furthermore, it is important that the senior executives consider the uniqueness of their employees "know-how" and knowledge, and motivate and reward them when they contribute to organisational knowledge and when they adopt KM practices in solving problems or overcoming challenges for the organisation. Senior executives' skills and competencies favourably contribute to enable successful KM practices adoption in public sector organisations.

However, the public sector organisations should not focus attention on the factors mentioned in this study. It is recommended that they take into consideration other factors out of this study's scope, such as organisational politics, corruption and IT literacy, which may impact KM practices adoption.

In summary, this study has proposed a list of factors that would support the public sector practitioners to develop new methods of improving KM practices adoption in their organisations. It also presents a range of advantages to frontline employees as well as operational, middle and top management in public sector organisations, which are listed here:

- this study has tested male and female participants at different managerial levels who work in a UAE public sector organisation, with varying years of experience in the public sector
- the research has presented a wide range of factors that impact upon the relationship between organisational change inertia and KM practices adoption in UAE public sector organisations, which discerns it from other empirical studies in the same field
- The study identifies four variables based on previous studies and the existing literature. Each variable reported a different number of incidents (22 in total) based on qualitative data analysis and documents reviews
- the researcher had the privilege of interviewing 17 participants from the UAE public sector (an educational organisation) at different managerial levels. It was difficult to gain access to a wider study population due to the public sector's bureaucracy and information access issues.
- the study's findings present fruitful insights for public sector management, in supporting them to improve organisational change inertia and to deliver a successful KM practices adoption.

The research's findings indicate that the participants from the public sector organisation tend to adopt KM practices, but they are also obliged to obey their organisation's policies and roles that prevent free access to information or to freely share knowledge without their superiors' permission and approval. Hence, organisational culture and senior executives' skills and competencies influence the acceptance of organisational change initiatives and the adoption of KM best practices.

Moreover, knowledge in public sector organisation improves efficiency and drives competitive value in sectors of health, education and transportation. Even though this research highlighted a number of unanswered issues in the literature, the study's findings indicate a number of limitations; the following section presents these limitations.

7.1.3 Potential Policy Change

Public sector organisations are considered a full ecosystem which consists of different entities from the central government to local administration, agencies and semi-government organisations that collaborate, exchange knowledge and information to achieve their goal of providing better services to their citizens. Adopting KM practices in public sector organisations will support those organisations in reforming public sector services and driving innovation. However, public sector also suffers from central decision-making, norms and bureaucracy which fosters organisational change inertia and hampers the change toward more open public sector organisations. O'Leary et al. point to this and argued that public sector organisations should be more open and allow free access to information across all public sector organisations in order to facilitate innovation. “Knowledge sharing in the public sector is mostly regulated through rules, a clear sense of hierarchy with fixed reporting structures, standard operating procedures, and laws that tend to restrict the free flow of information across organizational boundaries” (2011, p.177). KM practices in the public sector create value by reducing effort, time and the cost of wrong decisions. It would allow public sector organisations to do the right thing instead of doing things right. For example, “knowledge management, which is facilitated by ICTs, may enhance the effectiveness of policymaking and policy execution in policy-chains, such as the judicial chain from police arrest to prison, or the food chain from farm to family home” (Ferlie et al., 2003, p.417). A large amount of information flow across the public sector organisations will turn them into knowledge-intensive organisations. Governments should reform public sector policy to adopt the KM practices and develop knowledge-based organisations. The research results point to a potential change in policy change in the UAE to support KM in the public sector. There is no doubt that the public sector organisations will follow the government's traditional procedures and policies, which cause a reduced access to information and knowledge at the various levels of an organisation's management. The study's findings have indicated that many of the organisational factors that impact upon organisational inertia were related to the strict

adoption of government policies and strategies. Not to forget the growing challenges facing today governments in reducing spending, which puts the government under pressure to reform its policy and invest in KM. In this regard, Glisson et al. argue that “the changing environment of human services organisations includes new public policies, the reduction in government spending on social services, the increasing popularity of cost containment philosophies, and the privatization of public services” (2012, p.126). Hence, the researcher believes that in order to drive change in a public sector organisation, a potential policy change should be made. Policy-makers of public sector organisations should consider more open policies toward knowledge management to improve efficiency and drive competitive value and successful KM adoption. In summary, this research has proposed a list of recommendations for public sector policymakers to develop new policies to help drive KM practices adoption in the public sector organisations:

- empower capacity building for KM among the public sector’s human capital
- develop a strategy roadmap for the public sector organisations to develop a knowledge-based organisation
- help the public sector organisation develop KM units charged with driving change, managing the organisation knowledge base and facilitating the knowledge practices adoption
- delegate senior executives to take initiatives to drive change and develop knowledge-based organisations
- revise the current national culture of the public sector organisations around a knowledge base economy, innovation and digital optimisation
- capture and disseminate best practices from KM research in the public and private sector
- foster innovation across public sector organisations by applying the recommendations of this research

7.1.4 The Solution for KM Adoption in the Public Sector Context

The researcher has concluded this study by developing theoretical and practical contributions that address the study’s objectives. This study has investigated the subject of KM practices the public sector’s organisational change inertia challenges and how both organisational culture and senior executives’ skills and capabilities support this change. To ensure the effective implementation of the research’s recommendations by the UAE public sector managers and practitioners, the researcher developed a guiding process model as detailed in Figure 11.

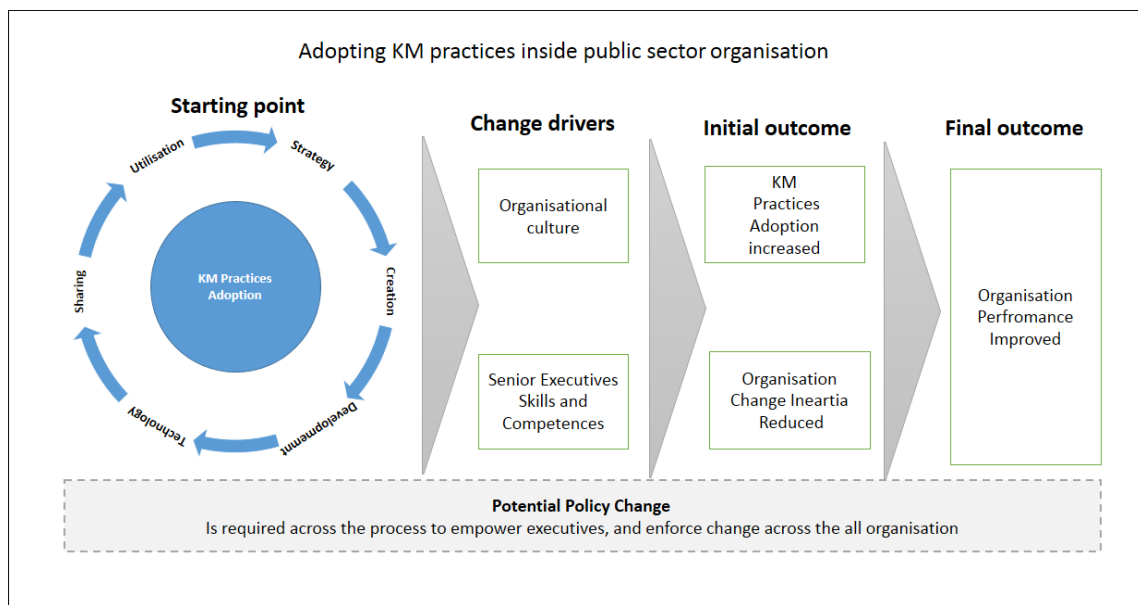


Figure 11 KM practices adoption in process model for public sector

The guiding process model consists of three phases: KM practices, change drivers, and initial and final outcomes

7.1.4.1 The KM Practices Adoption phase

In this phase, public sector management focuses on aspects such as strategy, creation, development, technology, sharing and utilisation of KM practices. Firstly, the managers focus on reviewing the existing or developing a new KM practices strategy that is appropriate

to their organisation's needs and objectives. The strategy should address the organisation's requirements to facilitate knowledge creation and development, and ensure that the proper technology infrastructure for knowledge flow and communication is available to enhance knowledge sharing and utilisation. With clear operational and action objectives, as with any strategy plan, management should also ensure that their plan include an authority and accountability matrix for the targeted KPIs to ensure a successful KM practices adoption. During this phase, management should highlight the risk and the optional policy change to empower an efficient strategy execution. There will be a need to train employees to reflect the enhanced skills and responsibilities associated with KM practices adoption. The Human resources department will have to incorporate these changes into the organisation's practices for new recruitment and performance appraisals.

7.1.4.2 The Change Driver's Phase

This phase is vital for KM practices adoption and it consists of two parts: cultural change and leadership skills.

In cultural change, management should focus on promoting a new culture among the organisation's individuals and driving cultural change from the bottom up, as well as changing the existing mind-set with regard to the organisation's relationship to employees by promoting loyalty and decision delegation. Management should also focus on the importance of organisational innovation based on knowledge improve the internal social context by applying transparency and trust, and adopt new policy changes where necessary to make those changes possible, for example, by changing the organisation's policy on information access in a certain department e.g. market research.

Then, cultural change should be promoted by providing skilled and competent leaderships to lead those changes. The strong leadership skills and competencies are important to driving the change, by encouraging employees across the organisation to get involved in the process of change for KM practices adoption, and by developing a rewarding and motivating system

as part of an encouragement and a trust-building approach. However, the leadership should also issue sanctions for those who avoid involvement in the change phase.

The public sector organisations will have to focus on culture and senior management motivation to include the change programmes' objectives within the organisational DNA. Hence, words will have to be transformed into written policy documents, as supported by management behaviour, human resources procedural changes, training programmes, amendments to roles and responsibilities and investments in IT.

7.1.4.3 The Initial Outcome Phase

In this phase, the organisation's management should be able to monitor the how the KM practice strategy, cultural change and leadership are performing. The management should review the KM practices adopted successfully and the level of reduced organisational inertia. This can be done by controlling the number of new products and services that have been improved or developed due to KM practices adoption. the level of employees' involvement in the change process and the number of achieved KM strategy KPIs. In case of negative results, the management then needs to go through existing policies, the leadership role and revise the the KM strategy.

7.1.4.4 The Final Outcome Phase

This is the final phase of the process model, where the management should start seeing a performance improvement at both the operational and financial level. The process model requires policy change to ensure full empowerment across the first three phases and to ensure the successful execution of KM practices adoption in the public sector organisations.

The research concludes with a process model to support both practitioners and researchers in applying KM practices and driving change across the organisation, starting by adopting KM practices in the organisations. Then, driving change through both culture and leadership skills

will impact and increase the level of KM practises adoption and reduce change inertia across the organisation. The last step is to measure the final outcome which will be reflected in the organisation's performance. This process model provides four level steps to adopt KM practices and lead change in the UAE public sector, The researcher believes that public sector organisations in the UAE will benefit by applying the steps entailed by this process model. The research contributions and process map detailed in Figure 11 will support practitioners and policymakers in understanding the drivers of KM practices in a public sector organisation. The research findings provide guidelines on how to reduce organisational change inertia, especially in the research context, through supportive organisational culture and senior executives' skills and capabilities. Thus, public sector organisations need to develop a knowledge base as a starting point to help maintain knowledge flow and information across organisations' boundaries and with external partners.

7.2 Limitations of the Study

Despite the promising contribution of the study findings, a few limitations have been identified that should be considered by future researchers:

- the research was carried in one public sector organisation operating in the UAE education sector. There is no reason to assume that the study findings can be generalised to other UAE public sector organisations, other GCC countries or other governments' functional sectors
- the conceptual framework proposed in this study provides other researchers in the field with a good starting point, as the framework was validated and tested on a sample size (17 participants), which surely provided some contributions for the generalisability of the study results
- it is not fair to assume that the reasons behind organisational change inertia and the KM practices adoption in public sector are consistent. Not all public sector

organisations are the same, organisations' employees' perceptions are different and the causes of organisational inertia are different from one organisation to another e.g. corruption, history of the organisation, management direction etc.

- the study applies a qualitative data analysis of 17 participants in one UAE public sector organisation. Therefore, further investigation is required with a larger sample size and different countries. It is hoped that other researchers will consider more variables such IT literacy, corruption, organisational politics etc.
- the above-mentioned limitations actually present opportunities for other researchers in the field to explore in future studies

7.3 Summary of Conclusions

The research findings and results provide generous answers to the unanswered concerns in the literature review.

The researcher was able to provide empirical confirmation of the relationships between KM practices adoption in public sector organisations, organisational change inertia, organisational culture and senior executives' skills and capabilities. This study suggests that organisational culture and senior executives' skills and capabilities could be an intervening mechanism between organisational change inertia and KM practices adoption in public sector organisations. If there is no support from a senior level of the government, for example by establishing a nationwide culture and policies that foster KM practices in public sector organisations, the role of both organisational culture and senior executives will be weakened by the traditional bureaucratic procedures of public sector organisations.

Moreover, the study presents some insights into integrating the knowledge sharing culture through the senior executives who enjoy the power of changing bureaucratic culture in line with government national culture, and new policies that support the knowledge-based organisations. With regard to KM practices, the researcher suggests that KM practices should

be fostered and embedded in the public sector's organisational culture and assigned as part of senior executives' duties and responsibilities.

In addition, the results point to the role of KM practices adoption in driving efficiency and performance. Adopting knowledge practices inside an organisation is a first step toward developing a knowledge-based organisation, which views knowledge as shared resources for all individuals in an organisation to drive organisational effectiveness.

Further, organisational change inertia negatively impacts KM practices adoption. Adopting new practices requires applying change to old routines, organisational culture, policies and procedures, not only at the level of the public sector organisations but at higher level e.g. the government national culture.

Furthermore, examining and exploring the framework of this study in other geographical settings such as Europe and considering other public sectors such as health would be a valuable contribution to the literature and validate the study framework explored in this study.

7.3.1 Reflection

Firstly, the researcher has reflected upon the crucial point of data access. The researcher used standard procedures to approach relevant ministers in the UAE public sector, with supporting ethics approval for the research. Further, the researcher identified a case organisation and was assisted by the senior management in her engagement with the potential research participants. Participation was limited to 17 executives, who agreed to provide written consent and participate in the research. Despite ensuring confidentiality and anonymity, several potential participants were worried about speaking with the researcher. Specifically, the researcher has reflected upon on two participants who had agreed to be part of the research but did not actually participate after being requested to provide written consent. They did not refuse participation, simply stating that they were too busy to speak to the researcher. The researcher acknowledges that the research context – public sector in the Middle East – played a key role in the uneasiness of employees to discuss KM practices at their organisation. The

potential respondents were probably worried to speak against their employer's policies and practices, or of being reported to their management.

Secondly, the researcher has reflected upon the research questions, the interview results and document analysis. Despite the importance of knowledge management practices, the policy documents of the case public sector organisation showed limited adoption of key KM terminology, which was supported by the interviewees' feedback. There seems to be a strong desire in the UAE to move public sector organisations towards becoming knowledge-based organisations, but management actions lacked the necessary rigour. In the UAE context, especially that of Abu Dhabi, the researcher sees a need for a top-down approach to implement KM policy changes. It is a national agenda to embark upon a non-oil based UAE and Abu Dhabi economy. The researcher thus finds a need to translate this agenda into implementable and visible goals for individual organisations.

Despite the lack of adoption of key terminology on KM practices adoption, the interview results led to six dimensions of KM practices that existed in the case organisation. This was a surprising finding. The results potentially indicate the informal adoption of KM practices. Furthermore, participant feedback suggested pockets of good practices as supported by the leader of that department. Thus, the researcher identified that public sector organisations are already adopting some KM practices, but they need to reduce change inertia by adopting a supportive culture and engaging change enablers i.e. executives with the appropriate skills and competencies to support knowledge-based transformations.

Finally, the researcher identified several dimensions of change inertia embedded in the public sector organisations in the UAE, which are supporting local Emirati people to take up jobs. Public sector jobs are assumed to be guaranteed for life, and there is a need to transform the human resources procedures to reflect upon the need for accountability and responsibility to adopt KM practices in specific recruitment, performance appraisal, training procedures.

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Appendix: Interview questions used in this study

General questions

1. Does your organisation own a knowledge management strategy?
2. How is knowledge management perceived and measured in your organisation?
3. What knowledge sources are considered more important for your organisation, internal or external, and why?
4. How does your organisation utilise its acquired knowledge?
5. What impact, if any, do knowledge practices have on your organisation performance?
6. Do knowledge practices impact upon your organisation's ability to deliver innovation, and how?

Questions related to KM practices

7. What are the knowledge management practices adopted by your organisation?
8. What priority is assigned to knowledge management practices by the top management at your organisation?
9. Do you think your organisation's ability to deliver innovation is influenced by an efficient KM practices adoption?

Questions related to inertia and organisation challenges

10. What are the KM challenges faced in your organisation?
11. What role does change inertia in your organisation play in driving knowledge management forward?
12. What conditions are necessary for your organisation to maximise the benefits of knowledge management practices and reduce change inertia?

Questions related to senior executives' role

13. What role do the skills and capabilities of senior executives from your organisation play in driving knowledge management practices adoption forward?
14. What kind of individual variables have an impact on knowledge management practices inside your organisation?
15. Does employees' involvement impact knowledge practices, and how?

Questions related to organisation culture role

16. Do your organisation's employees take an active or passive approach towards organisational knowledge and information sharing?
17. Does organisation culture influence employees' involvement in KM practices adoption, and how?

18. Does your organisation's culture involve individuals in knowledge management initiatives, and how?