KNOWLEDGE MANAGEMENT, CORPORATE ENTREPRENEURSHIP, MOTIVATION, ORGANIZATIONAL COMMITMENT AND JOB PERFORMANCE OF THE LOCAL GOVERNMENT MANAGERS

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DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
APRIL 2017

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By

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Thesis submitted to
School of Business Management,
College of Business (COB),
Universiti Utara Malaysia,
In fulfillment of the Requirement for the Degree of Doctor of Philosophy

Pusat Pengajian Pengurusan Perniagaan
(School of Business Management)

Kolej Perniagaan
(College of Business)

Universiti Utara Malaysia

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Tarikh: **20 April 2017**
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Program Pengajian *(Programme of Study)*	:	**Doctor of Philosophy**
Nama Penyelia/Penyelia-penyelia *(Name of Supervisor/Supervisors)*	:	**Prof. Dr. Rosli Mahmood**
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ABSTRACT

Local governments are in the frontline government position of public service delivery to individuals and organizations in the country. However, they constantly face widespread criticisms and are often viewed as inefficient and lacking accountability. Therefore the objective of this study was to examine the relationship between knowledge management, corporate entrepreneurship, and job performance among the middle level managers of local governments. The study also aimed to determine the mediating effect of public service motivation and the moderating effect of organizational commitment on these relationships. The quantitative survey method was adopted in the data collection. A total of 728 usable responses were gathered from the respondents of the local authorities in Peninsular Malaysia, Sabah and Sarawak. The Partial Least Squares (PLS) path modeling was employed to analyze the data. The results revealed the existence of significant relationships between knowledge management, corporate entrepreneurship and job performance. On the mediation relationship, public service motivation was found to mediate the relationship between knowledge management and job performance, but not the relationship between corporate entrepreneurship and job performance. However, the study did not find any moderating role of organizational commitment on the relationship between knowledge management and job performance, and also on the relationship between corporate entrepreneurship and job performance. This study not only provides evidence on the importance of knowledge management and corporate entrepreneurship to job performance in the public sector but also validates the research framework which is well established in the corporate sector. The study further contributes to the existing body of knowledge in the local governments where similar studies are generally scarce. Moreover, it specifies a strategy and sketches a road map on how to improve performance in the local government sector. Finally, study limitations and suggestions for future research are provided and discussed.

Keywords: Knowledge management, corporate entrepreneurship, public service motivation, organizational commitment, job performance.

ABSTRAK

Pihak kerajaan tempatan berada di kedudukan hadapan dalam menyediakan perkhidmatan kepada individu dan organisasi dalam negara. Namun, kerajaan tempatan sentiasa menerima kritikan-kritikan hebat, sering dipandang sebagai tidak cekap dan tidak mempunyai ketelusan. Justeru, objektif kajian ini ialah untuk meneliti hubungan-hubungan antara pengurusan pengetahuan, keusahawanan korporat dan prestasi kerja dalam kalangan pengurus-pengurus peringkat pertengahan dalam pihak berkuasa tempatan. Kajian ini juga bertujuan untuk menentukan kesan pengantaraan motivasi perkhidmatan awam dan kesan penyederhanaan komitmen organisasi ke atas hubungan-hubungan tersebut. Kaedah tinjauan kuantitatif digunakan dalam memungut data. Sebanyak 728 data bolehguna telah dikumpulkan daripada responden-responden dalam pihak berkuasa tempatan di Semenanjung Malaysia, Sabah dan Sarawak. Kuasa Dua Terkecil Separa (PLS) model haluan digunakan untuk analisis data. Dapatan kajian menunjukkan wujudnya hubungan-hubungan signifikan antara pengurusan pengetahuan, keusahawanan korporat dan prestasi kerja. Sementara itu, bagi hubungan pengantaraan, motivasi perkhidmatan awam didapati mengantara hubungan pengurusan pengetahuan dengan prestasi kerja tetapi tidak ke atas hubungan di antara keusahawanan korporat dengan prestasi kerja. Selain itu, kajian ini mendapati tiada peranan komitmen organisasi sebagai penyederhana ke atas hubungan antara pengurusan pengetahuan dengan prestasi kerja, dan antara keusahawanan korporat dengan prestasi kerja. Kajian ini bukan sahaja menyediakan bukti tentang kepentingan pengurusan pengetahuan dan keusahawanan korporat ke atas prestasi kerja dalam sektor awam tetapi juga mengesahkan rangka kerja kajian yang selama ini wujud dalam sektor korporat. Kajian ini seterusnya menyumbang kepada ilmu pengetahuan sedia ada apabila kajian-kajian seperti ini sangatlah berkurangan. Selain itu, kajian ini menyediakan satu strategi dan melakarkan panduan tentang cara untuk meningkatkan prestasi di dalam sektor kerajaan tempatan. Akhir sekali, limitasi dan cadangan kajian pada masa hadapan turut disediakan serta dibincangkan.

Kata Kunci: Pengurusan pengetahuan, keusahawanan korporat, motivasi perkhidmatan awam, komitmen organisasi, prestasi kerja.

To my husband, Budiman Ikhwandee

To my parents, Haji Mustapa & Hajjah Rahilah

To my sons, Muhammad Harith & Muhammad Hadif

To all my brothers and sisters

ACKNOWLEDGEMENT

Alhamdulillah, first and foremost all praises to Allah the Most Gracious and the Most Merciful. I am so grateful to Allah for giving me this opportunity, the strength and ability to finally complete this thesis.

I would like to take this opportunity to express my heartfelt gratitude to my supervisors; Professor Dr. Rosli Mahmood and Asscioate Professor Dr. Mohmad Yazam Sharif for walking with me during these last 4 years. Their meticulous attention which they have bestowed on me, their kindness, and their continuous supports were precious because they brought out the best in me - Thank you for enriching my life.

Special thanks go to my better half, Budiman Ikhwandee Fadzilah and the apple of my eyes, Muhammad Harith and Muhammad Hadif who made who fall and rise together with me along this journey. There is nothing I can really say to tell you how much I appreciate all you have done for me. You are one of the richest blessings in my life.

I wish to dedicate my appreciation to my father and my mother, Hj. Mustapa Hj. Kassim and Hjh. Rahilah Hj. Hamzah. Things would not have been in place if it were not for the prayers and support from both of you. Thank you for the effort and patience to build me into what I am today. I am also indebted to my siblings and other immediate family members who contributed in many ways to the success of this study.

A note of thanks also goes to all my colleagues for their time to guide and teach me on research knowledge which eased my PhD journey and course mates at College of Business, Universiti Utara Malaysia, who aided me, encouragement and support for my academic pursuits. I am very thankful to all managers in Malaysian local governments for their kind cooperation by responding to this study‘s questionnaires. My sincere gratitude also extended to Ministry of Higher Education and Universiti Utara Malaysia for granting me the scholarship to pursuit this PhD degree. Last but not least, to those who are directly or indirectly involved in making this thesis a success, I wish to convey my thanks to all of you. Thank you very much.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CE	Corporate Entrepreneurship
CMV	Common Method Variance
CR	Composite Reliability
DV	Dependent Variable
F^2	F-Square
GTP	Government Transformation Programe
IV	Independent Variable
JP	Job Performance
KM	Knowledge Management
LG	Local Government
LGA	Local Government Authority
LL	Lower Limit
MPG	Management and Professional Group
OC	Organizational Commitment
PCB	Public Complaint Bureau
PLS	Partial Least Square
PSM	Public Service Motivation
Q^2	Q-Square

R^2	R-Square
RBV	Resource-Based-View
SE	Standard Error
SEM	Structural Equation Modeling
SPSS	Statistical Power of Social Sciences
Std. Dev.	Standard Deviation
UL	Upper Limit
VAF	Variance Accounted For
VIF	Variance Inflation Factor

LIST OF APPENDICES

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In many countries the management of their governance is being handled at three levels; the federal level, the provincial or state level and the local government level. Local Government (LGs) authorities are responsible for managing services in localized areas within a country. But in recent years, the environment shaping the local government management (apart from the federal and provincial governments) has changed drastically and these changes created a big challenge in the running and management of Local Governments. One dominant factor which has influenced the management of Local Governments is globalization. Professor Jeffrey Sachs, a prominent economics professor from Columbia University, USA, has emphasized that –economic globalization has produced some large benefits for the world, including the rapid spread of advanced technologies such as the internet and mobile telephony" (Sachs, 2011, p. 1).

Globalization has also introduced interconnectivity between one Local Government in one part of the country and other Local Government authorities in the same country as well as that of other countries. The Local Government authorities anywhere can learn from the successes and mistakes of other LG authorities and thus make the management of LG in their respective places more efficient and effective.

Traditionally the role of local governments (LGs) is to provide services to the local residents with the aim of raising the standard of living through better social and physical facilities and services (Onu, 1988). LGs play a significant part in planning, coordinating and controlling the nation's development process at the local level (Othman, 2005). The roles played by Local Government authorities are important in developed as well as in developing countries. The United States (US) for example has the most numbers of highly developed local government systems in the world (Sachs, 2011). According to Rosenbaum (2013), there were approximately 85,000 local governments of which 35,000 are general-purpose, and 50,000 are special purpose local governments. Both of the local government systems are independent bodies with taxing authority and, in many cases, have quite a high degree of autonomy within the geographic sphere in which they function. In fact, they do everything from worrying about controlling and/or eradicating mosquitos to carrying out public-education functions, to having extensive urban-planning authority (Rosenbaum, 2013).

Elsewhere, the African nations have about 15,000 local governments, Asia with about 26,000 local authorities, and Latin Americans have roughly around 17,000 local governments (Rosenbaum, 2013). In terms of monitoring, unitary nations such as China, Indonesia, Japan, Korea, New Zealand, Philippines, Thailand and Vietnam, the central governments would prescribe the powers and functions of local government. However, in countries with a federal system such as Australia, India, Malaysia and Pakistan, the local authorities are answerable to the state or provincial government. In Australia, for example, the State and Territory Minister for local government has the power to dissolve the local councils or appoint administrator to carry out all the local government functions.

Malaysia, one of the countries which practiced the Federal System, the local government or local authority is called, *"pihak berkuasa tempatan"* (abbreviated PBT) or *"kerajaan tempatan"*. PBT is the grass-root or lowest level in the hierarchy of governance after the federal and state governments (Hussain, 2002; Norris, 1980; Nooi, 1997; Nooi, 2008). Although local governments have been in existence for decades, only in the early 1990s they were given serious attention by the Federal Government. Performance prospect about their administration was brought up through the philosophy and techniques in the New Public Management (NPM) development. According to the NPM, for the federal government to function effectively, all state and local governments must focused on creating an efficient and effective public service … with high discipline and integrity … and being people-oriented and customer-focused" (Ahmad Sarji, 1993). Nonetheless, as part of the public bureaucracy, local governments are not immune to criticisms for poor performance, failure of service delivery or did not meet the rising expectations from the communities.

The position of the local governments in Malaysia is enshrined in the Federal Constitution. Items four (4) and five (5) of the Ninth Schedule of the Federal Constitution state that local governments other than those in the Federal Territories of Kuala Lumpur, Labuan and Putrajaya (latest) are subjects under the State list. This means that all local authorities outside the Federal Territories are directly under the exclusive jurisdiction of States Government. In other words, local State Government has wide powers to control the local authorities and to ensure their effectiveness and efficient.

The category of local governments is divided into city council or city hall, municipal council and district council and is distinctively prescribed based on the following by-laws:

1) ―Local Government Act 1976 (Act 171)"- ―Local Government in Peninsular Malaysia Section 2 of the Act provides that local authority means any City Council, Municipal Council or District Council, as the case maybe, and in relation to the Federal Territory means the commissioner of the City Kuala Lumpur appointed under Section 3 of the Federal Capital Act 1960".
2) ―Local Government Ordinance A961 (Sarawak No. 11 of 1996)- Local Government in Sarawak ―Local Authority" means-
    a) ―A City Administration named in Part I of the First Schedule"
    b) ―A Municipal Council named in Part II of the First Schedule"
    c) ―A district Council named in Part III of the First Schedule";

       ―Bintulu Development Authority (BDA) has been inserted in the above-mentioned subsection (b)".
3) ―Local Authorities Ordinance 1996 (Chapter 20)- Local Government in Sabah ―Authority" means any District Council, Town Board or Municipal Council established under the provision of Section 3'.

The distinctions between the various categoris of LGs are based on ―the land size of the area they are responsible for (territorial boundaries), the locality status (urban cities, towns or rural towns), power of control and authority level, and the type of revenues collected for the different services provided" (Salleh, Syed Ahmad & Syed Ikhsan, 2009, p. 29). Currently, there are 149 local governments, consisting of 12 city halls/councils, 39 municipal councils, 98 district councils and five special modified local authorities.

Historically, the local government administration system was based on the British local government system, as Malaysia was formerly a British colony (Abdullah, 1992; Hussain, 2002; Norris, 1980; Nooi, 1997; Nooi, 2008; Zahari, 1991). But there are slight differences in practices between the two countries as the Malaysian local governments operate within the federal system while Britain implements a unitary system (Hussain, 2002; Norris, 1980 cited in Abdul Manaf, 2011). Local governments in Malaysia have the authority to collect taxes, mainly the assessment tax, licenses or permit grants for any trade within their areas of jurisdiction. Furthermore, the power of decision-making is transmitted to the local government to govern in its respective area. The executive authority lies with the mayors in city councils and presidents in municipal and district councils. These position holders are usually public servants.

The local governments are granted with the power given by the Local Government Act (1976) to deliver goods and services to the public. Local governments attend both mandatory and discretionary functions to public, where the final function is more towards local development issues. Mandatory functions could be commonly categorized into five main sections: public amenities, enforcement and license grant, public health and hygiene (cleaning and waste management), social service and development, and environmental issues (Ibrahim & Abdul Karim, 2004). Since local governments (LGs) are an integral part of the governance system, the performance management is equally important as it is linked with increased accountability and transparency on public service input and outcome (Talbot, 2005). The doctrine is based on the logic that performance information would provide better decision making within the government, leading to better political and public accountability among others. Performance management also helps relevant parties involved to learn and improve their performance where an organization could identify those who are excelled and those who are weak. In addition, performance management is able to serve as a foundation for compensation among public officials (Hughes, 2012). For example, good performance of public officials will be rewarded while poor performance will be sanctioned.

Performance management is “a process of identifying, measuring and enhancing performance of individuals and teams in an organization” (Siddiquee, 2014, p. 7). The Management Advisory Committee of Australia defined it as “the use of interrelated strategies and activities to improve the performance of individuals, teams and organizations” (O‘Donnell & Shields, 2002, p. 7). Performance management differs from performance measurement in that performance measurement is the activity of tracking performance against targets and identifying opportunities for improvement while performance management implies actions needed in order to improve performance in future (Siddiquee, 2014).

Over the past decades, Malaysia has seen a series of performance management reforms designed to improve the delivery of public service. Since 1968, there were significant trends toward increasing efficiency in the Malaysia‘s public sector. A number of key programs relevant to performance measurement development in the context of public sector that was introduced and implemented including the Productivity Improvement Initiative (PMI), Total Quality Management (TQM), Modified Budgeting System (MBS), New Remuneration System (NRS), Malaysian Remuneration System (MRS) and the current development program of Government Transformation Program (GTP) (Siddiquee, 2014). With the slogan *1Malaysia: People First, Performance Now,* Prime Minister Datuk Seri Najib Tun Razak introduced the GTP as a strategy to transform the way government worked as to enhance efficiency and effectiveness of the public service delivery. This program was presented as a mechanism to promote a more performance-oriented, accountable and responsive system of Malaysian government. Drawn on the basis of six National Key Result Areas (NKRAs), one of them is related to the local authorities with focus on capitalizing for quality services at the ground level. The strategy of the government effort was to enhance the delivery of local authority services through improvement in work systems and processes. Complex and ineffective regulations were simplified and streamlined while unnecessary procedures were eliminated. The GTP hoped to improve the efficiency of local authority services by reducing response time and increasing public satisfaction (11^{th} Malaysian Plan; www.epu.gov.my)

Local governments are also the first place local communities turn to when problems arose. This important role in providing public services to the communities put them directly in touch with the public, and their performances are being scrutinized as important measures of public perception on the overall government governance system (Mohamed Osman, Jusoh, Bachok & Bakri, 2014). This is particularly true in the

Malaysian context where local governments have traditionally been concerned with the delivery of services as their performance indicators. For any public sector institution or government department to deliver its mandate on service delivery to public, the employees of those organizations would be the backbone that plays important roles in fulfilling the endlessly changing demand of people under their jurisdictions (Bonsu & Kusi, 2013). Thus, good employee job performance in the local governments is associated with achieving the quality, quantity, cooperation, dependability and creativity required.

In the Eleventh Malaysia Plan (2016-2020) the Malaysian government formulated a policy on local government authorities by transforming the public service towards increased productivity. This would be done by capitalizing on local authorities for quality services at the local level, and the plan targeted to improve the delivery of services by building up their capacity and capabilities. The strategies included strengthening the service delivery through greater collaboration with the federal and state governments, and streamlining of rules and processes that can enhance local authority responsiveness. The delivery of local authority services would be enhanced through improvement in work systems and processes.

Earlier, under the 10th Malaysia Plan (10MP), the Government had specifically highlighted the need to strengthen the service delivery system by introducing competition and market mechanisms within the public services. Greater competitions were promoted to support agencies to learn from best practices, be more responsible on the shifting demands of publics and constantly attempt for improved performance. Due to that, the whole standards and stages of performance would have increased through such competitions. Among the efforts were the ranking of local government authority performance where star rating system was built to evaluate and rank local authorities on their performance along the four criteria of management effectiveness, quality of core services, the degree of community consultation and customer satisfaction. The rating system was made available for public viewing online, creating an environment of competition across local government authorities to improve their services.

The Malaysian government has now becoming more citizen-centric by focusing on enhancing the efficiency and productivity of the public service. Service delivery is to be further enhanced and executed with speed and accuracy through innovative and creative approaches while upholding integrity. According to the Government Transformation Program (GTP) Annual Report year 2014, the Public Service Delivery Transformation (PSDT) was about being inclusive and making government amenities accessible to the public. Improving public service delivery especially at the local government level is an explicit aspiration of the New Economic Model (NEM), which has been part of the National Transformation Programme (NTP). PSDT is the Government's effort to introduce these improvements in efficiency in delivery while at the same time aims to raise public engagement to the higher level. PSDT initiatives have been designed to put these aspirations into action, and to improve public services by providing better access to government facilities and to better meet the expectations of the public.

The government through the Public Service Delivery Transformation (PSDT) also seeks a faster and more efficient delivery of public services at all levels of departments and institutions. This is to make these institutions becoming more efficient and facilitative with respect to the services to the public as well as transforming those civil servants into a highly motivated and high-performing workforce (GTP Annual Report, 2014). These institutions at the local government level need to reorient their focus on tasks that the private sector could not or would not perform. The delivery of services must be efficient and effective, including applying the ‗whole of government' approach to complement the operations of the private sector in providing a comprehensive service to the public. However, the tasks of these institutions would not be possible without the full support and involvement of the employees at all levels. Employee job performance is very significant since it mirrors the organizational performance (Salleh, Yaakub & Dzulkifli, 2011). Thus the quality of employees is an important influence on performance, and those people who possess high skill level would be more successful in their task which ultimately would lead to higher organizational performance.

Several quality initiatives such as quality control circles (QCC), total quality management (TQM), ISO 9000 series quality assurance certification and the client's charters were implemented in most of the LGs and yet in the public eyes LGs are still being portrayed in a negative manner due to their poor performance in the delivery service. This shows that the initiatives including the employment of new technologies have not been effective enough to develop the individual performance in the local governments. Therefore, employees in the local governments have to perform the required task at their best due to the reasons that they reflect the whole performance from public sector workforce of the Local Governments in Malaysia. Studies have also found that job performance among public sector employees in the local governments may be attributed to factors related to their jobs as well as the departments and agencies that they belonged to (Johari, 2010). Thus transforming the human capital through improving and intensification the employees‘ knowledge and task skills is desired. This performance management is to enhance individual and group level skills and competencies so that the organization will benefit from the outcome.

The issue in the local governments came into the limelight when the Auditor General presented a report which highlighted the critical role of leadership in the local government services in ensuring accountability and integrity in their organizations (The New Straits Times, 2010). Most of the criticisms were on the local governments‘ leadership which did not have obligations to the basic values of public service and the welfare of the community who needed their help, (The New Straits Times, 2010; The Star, 2010; Siddiquee, 2008; The New Straits Times, 2003). The report further suggested for these leaders to apply the job segregation practice, checks and balances, and ways of shifting power and clearness to make sure the accountability they must have (The New Straits Times, 2010; The Star, 2010). Similar issues were also highlighted on the utilization of public resources by the LGs which included the lack of procedures and improper systems, high bureaucracy, poor, and corruption during task performance (Ling, 2003; Jong, 2003; Muthiah, 2003). The speed, costs and quality of services were also the main causes of high inefficiency in the LGs as well as unclearness in job performance description and personal integrity of some personnel in the departments (Chandrasekaran, 2003).

1.2 Problem Statement

Generally, the public sector organizations in Malaysia are constantly facing widespread criticisms and are often viewed as inefficient and lacking of accountability. The Local Government (LG) is one of these public organizations that have been heavily criticized for being poor in delivering services (Azmar, Romle & Ismail, 2015; Khalid, 2010; Siddiquee, 2010; Siddiquee & Mohamad, 2007). According to the Malaysian Public Complaints Bureau (PCB), almost 6000 to 7000 complaints were received annually which indicates the public discomfort and displeasure on the public sector incompetence and poor performances. The majority of these complaints were about ―delays in carrying out official duties, unfair action or decision, lack of public utilities or services, rules and procedures which are bias or inadequate, misuse of power, misconduct of public servants, inefficiencies of public servants, failure to enforce regulations and laws and unsatisfactory services" (refer to Table 1.1).

Table 1.1
10 Main Grouses of Public Employee"s Performance Based on Complaints Received by PCB From the Year 2008-2016.

No	Category
1	Delays in action or no action / Action does not meet customers‘ requirements
2	Failure of enforcement
3	Failure to compliance with procedure
4	Unsatisfactory of quality service including counter and telephone
5	Unfair action
6	Lack of public utilities or services
7	Misuse of power/ Corruption
8	Misconduct of public servants
9	Failure to enforce regulations and laws
10	Various Complaints

Source: Public Complaints Bureau, 2008-2016; www.pcb.gov.my.

The PCB also reported that in 2011 ―delays or lack of action on complaints" was the biggest problem faced by the community when dealing with the authorities (The Star Online, 24 July 2012). Out of 13,356 complaints documented by the Bureau, 44.7 percent were on ―public‘s unhappiness with the delay or neglect by civil servants to act on complaints". In 2013, the PCB reported a relatively high number of complaints fielded by the public due to delays in taking actions and providing services to them by the public service system (Romli & Ismail, 2014), and the Ministry that received the highest complaints was the Ministry of Urban Wellbeing, Housing and Local Government (55.3%). The local governments are under the jurisdiction of this Ministry. The number of complaints received by the Ministry during the same period is shown in Table 1.2 below. The highest number of complaints was recorded in year 2012 with a total of 295 complaints. Although the subsequent years showed a declining trend, public dissatisfaction still persists.

Table 1.2
Number of Complaints Received by Ministry of Urban Wellbeing, Housing & Local Government

No	Year	Total complaints
1	2008	103
2	2009	137
3	2010	111
4	2011	190
5	2012	295
6	2013	185
7	2014	147
8	2015	152
9	2016	111 (as to date 30th Sept 2016)

Source: www.kpkt.gov.my

Lack of transparency, delays in services, lack of customer service courtesy and unaccountable practices that obstruct governmental effectiveness were some of the complaints among the public (Mohamed Osman et al., 2014) while delays in approvals, corruption, and poor service seemed to be the main grouses quoted in the local dailies (Siddiquee, 2010; Siddiquee & Mohamad, 2007). Even though the government had prepared instruments of performance management such as guidelines and procedures on each step about services, there were still lots of harmful comments and dissatisfaction about the customer services, and these comments and complaints were published in the newspapers every day. It shows how bad the communities were being treated by the local government employees. The public should not be blamed for being intolerant if they have to wait for a long time to get services at the service counter. They should be treated nicely and fairly without any bias action. Local governments are expected to hold on their tasks and responsibilities in a good manner because both the public and the government are demanding for good quality performance and responsibility from local governments as service providers. Therefore the local governments need to improve the area of bureaucracy in the public delivery system, and one of the most effective measures is to promote an environment of competitiveness with a high level of integrity, transparency and accountability since this involves the employee job performance.

Local government employees are now under increased pressure to improve their service delivery as the increased education level of the population has made the public becoming more vocal and more sensitive on their local issues. They are also expecting better services and accountability from the service providers. According to Navaratnam (2014), the appraisal from Public Complaints Bureau‘s Annual Report showed that the

Malaysian public service delivery still had not been effective. The performance-related issues faced by the local government are often caused by the poor work performance among the employees. This has contributed to the failure to deliver a good quality services to its stakeholders and clients. It is argued that human resource training and development practices in the local governments are still inadequate to help the employees develop their knowledge, skills and abilities and subsequently to deliver the public services (Azmar, Romle & Ismail, 2015). The local governments are the front-liners and their functions in street lighting, building control, town planning, trades controls licensing, maintenance of local roads and car parks are very close to the public. Failure of any local government‘s departments to implement the given tasks or responsibilities, will affect the image of the authorities and representating the failure of the government policy generally.

Studies were conducted in the past to determine factors that affect performance in the local governments of the public sector. Factors such as lack of care including basic remuneration, job safety, training and others (Ahmed & Mohamud, 2015; Haddad, 2013), pervasive effect of red tape (Moynihan & Pandey, 2007; O‘Connors, Peter, Rudolf & Pooyan, 1982; Pandey & Welch, 2005; Siddiquee, 2006; Wright & Kim, 2004; globalization and human resources competencies (Legaspi, 2001; Bonsu & Kusi, 2014) contributed to the poor performance among the employees. There were also studies that found lack of standard norms and qualitative assessment of the performance (Ismajli, Zekiri, Qosja & Krasniqi, 2015); personal traits and behaviors of public servants that may influence customer satisfaction at different level (George & Hedge. 2004; Osman, Goon & Wan-Aris, 1998). Nonetheless none of those studies focused on the strategic orientation issues such as the advent of knowledge-based economy and entrepreneurism that may also contribute to the employee performance in the context of Malaysian local government services.

The local governments like other public and private sectors in Malaysia saw the emergence of a knowledge-based economy that calls for the requirement of skillful and knowledgeable workers. In fact one of the recommendations made in the 9th Malaysia Plan was the creation of a knowledge-based public service through encouraging knowledge sharing among and within government agencies. It was attested that lack of information and knowledge sharing led to poor public sector delivery (Rancangan Malaysia ke-9-2006-2010; RMK-9) as evidenced by the number of grievances received by the Public Complaints Bureau (PCB). The importance of knowledge-based was even given prominence during the era of Tun Dr. Mahathir Mohamed which was documented as follows:

> *"Knowledge, of course, has always played a role in the progress of nations. Knowledge of the stars and the geography of continents had enabled the early civilizations to trade with distant places and exploit distant lands. Knowledge of the sciences had contributed to the industrial age. But today knowledge refers more to the speed of communication and the speed of information and data. Everything that anyone needs to know in order to make decisions is at everyone"s fingertips literally. The deciding factor is the skill and the speed comes from the depth of knowledge that one has of the different elements and technological capacities can be made to work to yield a desired"*
>
> (Mahathir Mohamed, October 17, 2000: speech excerpts)

The Malaysian government believed that the knowledge-based economy would complement efforts to improve economy-wide productivity though enhancement in total factor productivity (TFP). Knowledge management is known to add value to the existing activities accompanied by improvements in technology, greater innovative capability, and input of higher skilled workforce. In addition, knowledge-based industries were found to have higher value-added multiplier and higher productivity compared to non-knowledge intensive industries (PEMANDU, 2010).

Knowledge management as a subject has been widely discussed among the academicians, scholars, and practitioners especially in the industrial sector. This is because knowledge is often treated as an essential weapon for accomplishing business success (Lee & Choi, 2003). Managing knowledge has also becoming a key strategy for a business firm‘s sustainability as well as enhances its performance (Abdul Rahman & Wang, 2010). However, little is known on its employment in the public sector. A large volume of literature was focused mainly on private sector organizations especially the large businesses since the financial benefits of employing knowledge management program could easily be recognized in this sector (Durst & Edvardsson, 2012). On the other hand, not much research on knowledge management was initiated in the public sector because it has been perceived that the public sector as non-profit organizations focus mainly in providing services to the public instead of achieving financial success (Syed Ikhsan & Rowland, 2004).

There were studies on knowledge management in the public service sector including Malaysia (McAdam & Reid, 2000; Syed Ikhsan & Rowland, 2004; Quin, Yusof & Hamdan, 2010; Salleh & Syed Ahmad, 2006, Supar, Ibrahim, Mohamed, Yahya & Abdul, 2005 & Ahmad, Sharom & Abdullah, 2006; Yusof & Ismail, 2009 & Mohamed, Wee & Chen, 2014), but there is still lack of studies that integrate the knowledge management in the local government sector which make it difficult to understand its contribution to the organizational performance. Therefore there is a need to examine further the employment of knowledge management in the public sector especially the local governments in order to gauge its contribution to the organization's competitive advantage as well as enhances performance.

Some scholars have argued for an organization to act in an independent manner. They believed that for an organization to survive and be successful, it must become entrepreneurial (Zhang, 2008; Kuratko, 2009; Hornsby, Kuratko, Shepperd, & Bott, 2009). This requires continuous organizational renewal, innovation and risk taking, as well as mobilizing resources, organizing systems, and implementing strategies to exploit the opportunities (Hurley & Hult, 1998; Lumpkin & Dess, 1996). Entrepreneurial behaviors either at individual or organizational level enable them to be innovative and proactive to conceptualize situations, able to take greater risks, and flexible enough to sense and quickly respond to environmental conditions (Lee & Healy, 2006). Being entrepreneurial, also enable them to capture new ideas, trying new procedures, or implement new policies in improving decision-making and problem solving effectiveness (Gibb et al, 2009; Etzkowitz, 2004). Generally, entrepreneurial behaviors or corporate entrepreneurship among employees are always been associated with positive results, either at the individual level or organizational level (Ahmad, Nasrudin & Mohamed Zainal, 2012). At the individual level, the outcome is often linked to higher job satisfaction and greater commitment at workplace (Holt, Rutherford & Clohessy, 2007) and increased work performance (Ahmad, Nasrudin & Mohamed Zainal, 2012) while at the organizational level, the results commonly are focused in terms of objective profitability and firm performance (e.g., Zahra & Covin, 1995; Zahra & Garvis, 2000).

There were studies that mainly focused on organizational and business corporate entrepreneurship and firm performance. McGrath and MacMillan (2000) discovered that entrepreneurial behaviors in global companies led to breakthrough products and services, development of new technologies and increased performance, while corporate entrepreneurship was found related positively to the business performance (Barret & Weinstein, 1998; Jogaratnam, Ching & Tse, 2006). Several studies have also examined the role of corporate entrepreneurship in the performance of firms by applying different contingency and configuration approaches and still found positive results (Chow, 2006; Covin & Wales, 2012; Hughes & Morgan, 2007; Jantunen, Puumalainen, Saarenketo, & Kylaeiko 2005; Kzem & van de Heijden, 2006; Keh, Nguen & Ng, 2007; Krauss, Frese, Friedrich, & Unger, 2005; Madsen, 2007; Naldi, Nordqvist, Sjöberg & Wiklund, 2007; Poon, Ainuddin & Junit, 2006; Walter, Auer & Ritter, 2006 & Wiklund & Shepherd, 2003; 2005). Yet most studies which have conducted research on the link between corporate entrepreneurship and organization performance were focused on corporate or business sector (Covin & Slevin, 1991; Zahra, 1993; Hornsby, Naffziger, Kuratko & Montagno, 1993; Lumpkin & Dess, 1996; Adonisi, 2003; Antoncic & Hisrich, 2004; Heinonen & Korvela, 2003; Kearney, Hisrich & Roche, 2008; Cangahuala & Chen, 2010).

Although the term ‗corporate entrepreneurship' is commonly used to refer activities in the corporate and business oriented world, studies have also revealed that entrepreneurial activities within the public sector could improve the performance of public services (Kuratko, 2004; Thornberry, 2006). Nonetheless, existing research regarding the impact of corporate entrepreneurship (entrepreneurship activity within the organization) on performance in the context of public sector organizations, either in local or international scopes, is still scarce. There were studies conducted in Indonesian in the context of civil government organization, but only few were on corporate entrepreneurship concept to improve the employees' performance (Ghina, 2012; Suryanita, 2006; Sofyan, 2008; Mariam, 2009; Mariana, unpublished). For example Ghina (2012) found that individual's entrepreneurial orientation is supportive to the success in the public service.

It is also worth noting most of the corporate entrepreneurship studies which focused mainly on the private sector were conducted in developed countries especially the US and some European countries. Some authors have argued for the need for corporate entrepreneurship studies in other countries with socio-cultural differences (Sharma & Dev, 2012; Shehu, 2014; Wales et al, 2011) while others suggested in different sectors and context (Bakar & Mahmood, 2013; Ndubisi & Iftihar, 2012; Mahmood & Wahid, 2012; Musa, Abd Ghani & Ahmad, 2011). Hence, the needs to extend further the effect of corporate entrepreneurship on work performance of employees in the context of local governments in Malaysia.

McClelland (1961) introduced the concept of achievement motivation. It posits that people with achievement motivation exhibit role behavior such as moderate risk taking, energetic and instrumental activity, taking responsibility, knowledge of results of decisions, and anticipation of future possibilities. McClelland (1962) further refined the roles as taking responsibility of problem solving, establishing goals, taking moderate risk, and looking for feedback on performance. Past studies have examined and confirmed achievement motivation as a predictor of performance (Collins, Hanges, & Locke, 2004; Stewart & Roth, 2007; Ryan, Tipu, & Zaffane, 2011; Deshpande, Grinstein, Kim, & Ofek, 2013). Studies were also conducted on the public service motivation in both public and private sectors in Indonesia (Yanti, 2012), and among public sector employees in Malaysia where lack of motivation was found to have had caused a growing public complaints of service delivery (Mahazril_Aini, Zuraini, Hafizah, Aminuddin, Zakaria, Noordin & Mohamed, 2012).

Motivation also was tested as a mediator variable. According to Baron and Kenny (1986) if an independent variable relates directly to mediator, and the mediator relates directly to dependent variable, then there is a possibility of mediation between the independent variable and dependent which signifies a direct and indirect relationship between the independent and dependent variables. Past studies had examined the mediating role of motivation on workplace characteristics and outcomes relationship (Jayaweera, 2015, Parker, Baltes, Young, Huff, Altmann, Lacost & Roberts, 2003; Geister, Konradt & Hertel, 2006), the mediating role of intrinsic motivation on the association between developmental feedback and employee job performance (Liao, Liao & Zhang, 2014), and between personality traits, performance appraisal satisfaction and job performance (Kuvaas, 2006; Barrick, Stewart & Piotrowski, 2002).mediating or moderating role of factors such as personality traits, performance appraisal satisfaction and job performance (Kuvaas, 2006; Barrick, Stewart & Piotrowski, 2002; Carr, Schmidt, Ford & DeShon, 2003; Ostroff, Atwater & Feinberg, 2003). These scholars have also suggested the inclusion of a mediating variable in a relationship between independent and dependent variables in the public sector. The mediating role of public service motivation in the local government needs further examination.

A number of studies have also linked organizational commitment with employee work performance. Cesario and Chambel (2017) for example revealed the existence of a positive relationship between organizational commitment and employee performance but commitment did not present significant predictor strength, while Susanty and Miradipta (2013) and Alderton (2016) and Steyrer, Schiffinger and Lang (2008) confirmed the positive and significant effect of organizational commitment on employee performance. However, Toban and Sjahruddin (2016) only found the indirect relationship where organizational commitment acted as a complete mediator in explaining the effect of transformational leadership and employee performance. Many studies have also found organizational commitment played a mediator role in the relationships between job performance with other variables such as leadership styles, (Yeh & Hong, 2012; Wang, Liao, Xia & Chang, 2010; Rageb, Abd-El-Salam, El-Samadicy & Farid, 2013; work climate (Che Rose, Kumar & Pak 2009; Suliman, 2002), job security (Davy, Kinichi & Scheck, 1997) as well as such as between goal orientation and job satisfaction, (Lee, Tan & Javalgi, 2010); (Yucel, 2012), leadership behavior and job satisfaction (Darwish, 2000), goal orientation and job satisfaction (Lee, Tan & Javalgi, 2010), and distribute justice-benevolence (Iverson, McLeod & Erwin, 1996). However, not much of these studies focused the moderating effect of organizational commitment on those relationships.

Thus additional study is needed to examine the moderating role of organizational commitment in the context of employee job performance in the local government sector.

1.3 Research Questions

There is a paucity of studies on employee job performance in the local governments in Malaysia, and no studies have ever integrated the knowledge management, corporate entrepreneurship, motivation, organization and job performance into a single model to answer research issues in the local governments. Based on this argument, the following research questions are posed:

1. Is there a significant relationship between knowledge management and job performance?
2. Is there a significant relationship between corporate entrepreneurship and job performance?
3. Does public service motivation mediate the relationship between knowledge management and job performance?
4. Does public service motivation mediate the relationship between corporate entrepreneurship and job performance?
5. Does organizational commitment moderate the relationship between knowledge management and job performance?
6. Does organizational commitment moderate the relationship between corporate entrepreneurship and job performance?

1.4 Research Objectives

Generally, the objective of this study is to examine the relationships between knowledge management (KM), corporate entrepreneurship (CE), public service motivation (PSM), organizational commitment (OC) and job performance (JP). Specifically, the study aims to achieve the following objectives:

1. To determine the significant relationship between knowledge management and job performance.
2. To determine the significance relationship between corporate entrepreneurship and job performance.
3. To examine the mediating effect of public service motivation on the relationship between knowledge management and job performance.
4. To examine the mediating effect of public service motivation on the relationship between corporate entrepreneurship and job performance.
5. To examine the moderating effect of organizational commitment on the relationship between knowledge management and job performance.
6. To examine the moderating effect of organizational commitment on the relationship between corporate entrepreneurship and job performance.

1.5 Scope of Study

This study is centered on the direct effects of knowledge management and corporate entrepreneurship on job performance, the mediating role of public service motivation as well as the moderating effect of organizational commitment on the relationship between knowledge management, corporate entrepreneurship and job performance of managers in the local governemnts in Malaysia. Thus, the assessment of the local governments is limited to the following variables: knowledge management, corporate entrepreneurship, motivation, organizational commitment, and job performance. This study is conducted in the context of local government authorities in Peninsular Malaysia, Sabah and Sarawak. The local government authorities in Peninsular Malaysia consist of City Council or City Hall, Municipal Council and District Council, in Sabah the District Council, Town Board and Municipal Council, and the local authorities in Sarawak comprises of City Administration, Municipal Council and District Council.

The population for this study was the Management and Professional Groups (MPG) of Local Government authorities. According to Abdul Manaf, (2011) and Ismail and Yusof (2009), MPG refers to the middle management between top management and supporting staff. MGS were chosen because they are responsible for strategic decisions at the operations level, and therefore they are in the best position to describe the various organizational characteristics of their departments. The MPGs are usually involved in policy-making for the human resource management, financial management and social-economic development within their jurisdictions (Abdul

Manaf, 2011 & Ismail & Yusof, 2009). This study also focused more on the operational capabilities that are more closely related to the middle-level management rather than top management. It aimed to measure those responsible for the execution of strategy, not the top management who formulated it. Nonaka and Takeuchi (1995) pointed out the significance of middle-level managers because they usually become a team leader due to the knowledge they possess. These middle managers play a key role in the organizational knowledge-creation process, and they are answerable to the top management and supervise supporting staff as well (McAdam & Reid, 2000). Thus, collecting information from the midlle level management of the local government authorities would well support the focus of this study.

This study employed the quantitative research approach and data were collected using a survey questionnaire research instrument with five primary sections, specifically, knowledge management, corporate entrepreneurship, motivation, organizational commitment and job performance. Each respondent was mailed through postal service with a self-administered questionnaire together with a self addressed returned envelope. The used of questionnaire is the logical way to measure intangible constructs such as perceptions and attitudes. Questionnaire also can provide an efficient and versatile data gathering technique. Although, questionnaire may results in data bias due to time of measurement effects and the inability to measure any changes in attitudes, perceptions, or behaviours it is still the most prevalent data collection method used to measure knowledge management, corporate entrepreneurship, motivation, organizational commitment and job performance in this study.

1.6 Significance of the Study

It is really hoped that this study could provide a noteworthy theoretical and practical contribution in the job performance domain. From the theoretical viewpoint, this study aims to contribute some insights on the use of knowledge management and corporate entrepreneurship in predicting job performance. By incorporating public service motivation as a mediator, organizational commitment as a moderator and two independent variables, which are knowledge management and corporate entrepreneurship, the outcomes in the study could enhance the existing body knowledge in the area of local government managers‘ job performance specifically in Malaysia. Consequently, the combination of Resource-Based-View – Micro-foundation Theory (Barney & Felin, 2013; Barney, 1991) and Motivational Theory (Vroom, 1964) would have provided additional theoretical knowledge and understanding in predicting local governments managers‘ job performance from the perspectives of organizational psychology and human resource management. On top of that, it is also wished that Malaysian local governments can be more ―entrepreneurial individuals" while complementing their job at their organizations since they need to recognize opportunity, evaluate potential and organize to exploit the most promising opportunities for economic gain or to satisfy other motives.

The need to conduct studies specifically on Local Government managers is based on the premise that the public sector faces problem while delivering services to the customer. Currently, the public is becoming stronger in determining the direction of public organizations. As a consequence, customer satisfaction is a norm that exists in both public and private sectors. Interestingly, citizens become more educated and they are involved in the decision-making process of various public agencies, particularly agencies which are continuously dealing with the community. Exploring the public sector organizations specifically local governments sector would also bring greater depth to the understanding of the public sector entrepreneurs and knowledge management process, ultimately providing enhanced value to improve their job performance which will lead to enhanced service delivery. This insight can benefit not only the existing public sector entrepreneurs but also has risen the challenge to foster and coach this new generation of public sector employee to become more competent, talented, creative, innovative and productive.

In addition, this study had employed hierarchical modeling applying PLS-SEM for the purpose of explaining the associations in the present study model. By using the PLS application, it was hoped that the study would be able to extend the theoretical contribution by developing and validating a second-order formative corporate entrepreneurship and public service motivation model. The present study also has proven the strength of the analysis by illustrating how to quantify a mediating and moderating variable in a hierarchical model.

Finally, it is hoped that the research findings are able to help the development of Malaysian public sector organization's management strategy in terms of effective job performance. This study was also intended to assist Malaysian local governments to provide better information through a good planning system to enhance efficiency and effectiveness of public service delivery and to offer improved services for sustainable development as it is part of the employee job performance evaluation.

1.7 Definition of Key Terms

The key terms mainly used in this study are defined as follows:

1.7.1 Local Governments

Local Government refers to the third level authorities of a Malaysian government's governance structure after the state and federal governments. Locally known as *Pihak Berkuasa Tempatan* (PBT) it is at the frontline position of public service delivery to individual society as well as other public and private sector organizations. Under the Local Government Act 1976 (Act 171), the local government authorities in Peninsular Malaysia are the City Council or City Hall, Municipal Council and District Council, in Sabah the District Council, Town Board and Municipal Council (Local Authorities Ordinance 1996), and the local authorities in Sarawak comprises of City Administration, Municipal Council and District Council (Local Government Ordinance A961; Sarawak no 11 of 1996).

1.7.2 Management and Professional Group (MPG)

Management and Professional Group (MPG) is the middle management staff between top management and supporting staff and the groups included are those in Grade 41, Grade 44, Grade 48, Grade 52 and Grade 54 (Abdul Manaf, 2011 & Ismail & Yusof, 2009). They ranges from junior managers (Grade 41) to senior managers (Grade 54), and they are directly involved in policy-making for human resource management, financial management and social-economic development of within their jurisdictions.

1.7.3 Knowledge Management

Knowledge management is defined as a systematic and organized attempt to use knowledge within the organization to provide services to the public and to improve performance (Syed Ikhsan & Rowland, 2004).

1.7.4 Corporate Entrepreneurship

Corporate entrepreneurship refers to an individual employee‘s predisposition to accept entrepreneurial process, practices and decision making as characterized by a preference for innovativeness, risk taking and proactiveness (Stewart, 2009).

1.7.5 Public Service Motivation

Public service motivation is referred to as an individual‘s predisposition to respond to motives grounded primarily or uniquely in public institutions in organizations that might drive individuals to perform public service (Perry & Wise, 1990; Perry, 1996).

1.7.6 Organizational Commitment

Organizational commitment is defined as being multidimensional with three forms; affective commitment (AC) as the strength of an employees‘ identification with and involvement within an organization, normative commitment (NC) as a sense of moral obligation or duty to remain with an organization, and continuance commitment (CC) as the recognition of investment loss upon leaving the organization (Meyer & Allen, 1997).

1.7.7 Job Performance

Job performance refers to the employee behavior that is necessary for organizational effectiveness; task performance and contextual performance (Borman & Motowidlo, 1993). Job performance is also defined as the aggregated value to the organization of the discrete behavioral episodes that an individual performs over a standard interval of time (Motowidlo, Borman, & Schmit, 1997).

1.8 Organization of the Thesis

The thesis has five chapters. Chapter One presented the background of the thesis and problem statement which identified the ‗gaps‘ of study. The chapter then outlined the research question and objectives, as well as the scope and significance of study. Chapter Two reviews the related literature on knowledge management, corporate entrepreneurship, public service motivation, organizational behavior and job performance. The chapter also examines the relationships among the variables of study, the theoretical development and formulation of hypotheses of study.

Chapter Three describes the research design employed in the study. The population and sample, instrument and measurements, validity and reliability, pilot study, data collection procedures and techniques of data analysis are described and justified in this chapter. Chapter Four reports the analyses conducted and the results of the study. The survey responses as well as the issue of non-response bias are also discussed. The chapter presents the descriptive findings on the demography, means of the variables, and the testing of the normality, linearity, multicollinearity, and homoscedasticity. The chapter also produces the PLS-SEM modeling analysis with measurement and structural models of main associations, mediation and moderation analyses to answer the hypotheses of study. Finally, Chapter Five provides the discussion on the findings, and outlines the contributions and research implications. The chapter concludes with the study limitations and suggestions for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The objective of this chapter is to review the extant literature in order to gain a clear insight into the topic of study. First the chapter reviews the conceptual development of variables of study namely; job performance, knowledge management, corporate entrepreneurship, public service motivation, and organizational commitment. A review of literature on the relationships between knowledge management, corporate entrepreneurship and job performance is then presented followed by a review of public service motivation as a mediator and organizational commitment as the moderator variable. The critical analyses in the development of hypotheses of study are also described in this chapter. The review concludes with a focus on the research framework that forms the basis of study.

2.2 Job Performance

Measuring job performance has been and remains a major challenge for most researchers. This concept has been researched for past decades especially in field of management, occupational health, and industrial-organizational psychology (Koopmans et al., 2011; Koopmans et al., 2013; Koopmans et al., 2014a; Koopmans et al., 2014b). Basically, job performance is a concept applied to portray ―how good a worker performs on his or her task-related duties" (Rotundo, 2000; Smith, 1976 & Murphy, 1989). In other words, it should be viewed as behaviors rather than results. Performance is crucial to employees and employers since it certainly manipulates few decisions about terminations, promotions, merit increases and bonuses (Caillier, 2010). As too much attention is giving about the organizations' aspect, individual job performance has been studied comprehensively by many scholars. It began in early 1900s with Frederick Taylor's study where he argued on which organizations could raise employee productivity by recognizing and regulating the most competent needed schedule. However, this study was criticized because it highlighted on ―mechanization" instead on humanistic side inside the organization (March & Simon, 1958).

The widespread use of individual performance measures in single studies and meta-analyses proved that individual performance is a key variable in work and organizational psychology (Sonnentag & Frese, 2002). Interestingly, individual performance is mainly treated as a dependent variable where it makes perfect sense from a practical point of view. In other word, individual performance is something organizations want to enhance and optimize. Landy and Conte (2007) provided a definitive description on the concept of job performance as:

> *"Performance is behavior, and upon consideration of performance in its purest form, it can be described as something that people can actually do and can be observed. Logically in most jobs, the „behavior" is about thinking, planning, problem-solving and others. Most of the „behaviors" could not actually be observed, but only defined with the help of the individual employee. While*

considering performance from a working environment aspect, it could only include the specific actions and behaviors which are relevant and applicable to the organization"s goals and which can be measured in terms of the individual employee"s proficiency. This performance is what the organization hires the employee to do, and to do well- it is "not the consequence or result of action; it is the action itself (p. 163)".

According to Campbell (1990); Campbell, McCloy, Oppler and Sager (1993); Kanfer (1990) and Roe (1999), performance has been differentiated between an action (i.e., behavioral) perspective and an outcome perspective of performance. The behavioral perspective refers to what an individual does in the work situation. It involves behaviors such as assembling parts of a car engine, selling personal computers, teaching basic reading skills to school children or performing heart surgery (Sonnentag & Frese, 2002). Not every behavior is subsumed under the performance concept, but only behavior which is significant for the organizational goals. Performance is what the organization hires one to do, and do well (Campbell et al., 1993). Hence, performance is not defined by the action itself but by judgmental and evaluative processes (Illgen & Schneider, 1991; Motowidlo, Borman & Schmit, 1997). Moreover, only actions which can be measured are considered to constitute performance (Campbell et al., 1993).

The outcome perspective refers to the consequence or result of the individual's behavior. The behaviors may result in outcomes such as numbers of engines assembled, sales figures or successful heart operations. Outcome perspectives of performance depend on factors other than the individual's behavior. For instance, a teacher who delivers a perfect reading lesson (behavioral perspective of performance), but one or two of his students nevertheless do not improve their reading skills due to their intellectual deficits (outcome perspective of performance). In line with Dainty, Cheng and Moore (2003), Tuuli and Rowlinson (2009) adopted the behavioral view of job performance as a shift towards more balanced human performance criteria that consider the softer aspects of behavior necessary for achieving project success. This behavioral perspective of job performance includes task performance behaviors and contextual performance behaviors.

2.2.1 Relevance of Individual Performance

Most organizations need highly performing individuals to meet their goals, to deliver the product and services as they specialized in, and achieving competitive advantages. Accomplishing tasks and performing at a high level is one of the motivation‘s sources. However, low-level performance and not reaching targets would be dissatisfaction to the person or individual (Van Scotter, Motowidlo & Cross, 2000). According to Sonnentag and Frese (2002), the high relevance about individual performance is associated in work and organizational psychological research. Hence, they conducted a literature search from twelve of the major work and organizational psychology journals which covered a wide range of individuals, group-level and organizational situations. From the literature search, they discovered 146 meta-analyses within the past 20 years and among them, a half (54.8%) addressed individual performance as a core construct. Then, majority of the meta-analyses (72.5%) identified individual performance as the dependent variable or as the outcome measure. Only 6 percent from those meta-analyses that included individual performance measures found it was the independent or predictor variable (Sonnentag & Frese, 2002).

The extensive use of individual performance measures in single studies and meta-analyses displays that individual performance is the key variable in work and organizational psychology. Surprisingly, individual performance is mainly treated as a dependent variable which it belongs to the perfect sense from a practical point of view that individual performance is something organizations want to enhance and optimize (Sonnatag & Frese, 2002).

2.2.2 Definitions of Job Performance

Generally, job performance can be defined as actions which lead towards organizational goals and it is under an individual's control. Rotundo (2000) argued that this definition comprises a wide range of job behaviors, and that some behaviors contribute to the employee's duties and responsibilities, while other behaviors still affect the goals of the organization but do not fall under duties and responsibilities. Motowidlo, Borman and Schmit (1997) defined job performance as ―the aggregated value to the organization of the discrete behavioral episodes that an individual performs over a standard interval of time" (p. 71), while Campbell (1990) defined individual work performance (individual job performance) as behaviors or actions that are relevant to the goals of the organization. In fact, individual work performance (IWP) focuses on behaviors or actions of employees, rather than the outcome or output from the actions. Indeed, Indiana University (2004) has referred good performance to individual performance. It affirmed that the noticeable behaviors and actions which explain how the job is to be done, plus the outcomes that are projected for satisfactory job performance. They tell the employee what a good job seems like, and the purpose of performance standards is to communicate prospects.

According to Murphy (1989), the job performance area might be defined via the following four dimensions; task behaviors, interpersonal behaviors (communicating and cooperating with others), downtime behaviors (work-avoidance behaviors) and destructive/hazardous behaviors (behaviors that lead to a clear risk of productivity losses, damage or other setbacks). Meanwhile Campbell (1990) categorized eight job performance dimensions as job-specific task proficiency, non-job specific task proficiency, written and oral communications, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision and management and administration.

Borman and Motowidlo (1993) argued that the whole job performance might be segregated by the general dimensions of task performance and contextual performance. These researchers exemplified task performance as the proficiency with which job incumbents perform activities that are formally recognized as part of their jobs, activities that contribute to the organization's technical core either directly by implementing a part of its technological process, or indirectly by providing it with needed materials or services. They also portrayed contextual performance as discretionary behaviors that apply across all jobs are not necessarily role prescribed and that contribute to the social and psychological environment of the organization. For example, the contextual activities are volunteering, persisting, helping, cooperating and following rules. Both terms have been accepted as it varies between different jobs consigned.

Built on the 486 measurements from the job performance‘ literature, Viswesvaran (1993) acknowledged 10 dimensions about individual job performance. These are productivity, quality of work, job knowledge, communication competence, effort, leadership, administrative competence, interpersonal competence and compliance with/acceptance of authority. Viswevaran and Ones (2000) and Rotundo and Sackett (2002) later conceptualized job performance as three extensive dimensions namely; task performance, organizational citizenship behavior and counterproductive work behavior. The term organizational citizenship behavior refers to individual behavior which leads towards the continuation and improvement about the social and psychological context which helps task performance (Organ, 1988).

There are few models built up by scholars and researchers for the purpose of measuring individual performance. According to Bratton and Gold (1999), a performance model applies three variables namely; knowledge, skills and aptitudes, while Tovey (2001) suggested that a good performance model should consist of inputs, processes and outputs. Inputs are knowledge, skills and expertise of the workers, processes refer to behavior during working hours, and outputs are the specific products produced by each and every worker that can be measured. The combination of these three levels collectively will generate performance as a ―finish result" or ―outcome" which could be reached by an organization for the better policies, bonuses and better-working surroundings. Meanwhile Leap and Crino (1993) mentioned that by using performance appraisal to measure employee's job performance, it provides two rationales at the same time; developing employees and improving organizational performance.

Based on the research conducted by Pollanen (2005), the term ‗performance' has not been clearly clarified in the public institutions. Most of the outcomes in the public service sector come from and are distributed by groups (Husted Michailova & Minbaeva, 2005). Thus measuring performance and documenting productivity achievement in the government organizations are not easy jobs (Halachmi & Bouckaert, 1994). In addition, public sector performance is closely related to politics, people and process, and that the most significant problem related to public service performance is not the actual performance of the public service organizations but the successful implementations that are not made known to the public (Ingraham, 2005). As the result, performances are measured through failures not successes. Andreassen (1994) suggested that the best way to improve public sector performance is through increasing the organizational effectiveness. Pan and Scarbrough (1999) added in order to develop an organizational effectiveness and effectiveness knowledge sharing can play an important role.

Porter and Lawler (1968) have described the three categories of performance. First the measure of output rates, amount of sales over a given period of time, and the production of a group of employees reporting to manager and others. The second category is the ratings of individuals by someone other than the person whose performance is being considered, and the third category is self-appraisal and self-ratings. Therefore, job performance is able to determine the level of accomplishment of business, social objectives and responsibilities from the perspective of the judging party (Hersey & Blanchard, 1993).

Meanwhile Viswesvaran and Ones (2000) identified job performance as scalable actions, behavior and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals. Koopmans et al., (2011) demonstrated that individual job performance can be conceptualized and operationalized in diverse disciplines. They conducted a systematic review by identifying frameworks portraying the construct about individual job performance. 58 studies were identified where 35 were classified as –original conceptual framework”, and the other 23 studies did not represent as new conceptual framework but referred to one of the other original conceptual frameworks. Table 2.1 presents Koopmans et al (2011) partial overview of identified conceptual frameworks.

Table 2.1
Identified Conceptual Framework of Job Performance

		Dimensions		
Generic Framework	**Task Performance**	**Contextual Performance**	**Counterproductive Work Behavior**	**Other**
Murphy (1989)	Task behaviors	Interpersonal behaviors	Downtime behaviors Destructive or hazardous	
Campbell (1990)	Job specific task proficiency Non-job-specific task Proficiency	Written and oral communications Demonstrating effort Maintaining personal discipline Facilitating peer and team performance		

		Supervision and leadership Management and administration		
Borman and Motowidlo (1993)	Task performance	Contextual performance		
Viswesvaran (1993)	Productivity Quality Job knowledge	Communication competence Effort Leadership Administrative competence Interpersonal competence Compliance with and acceptance of authority		Overall work performance
Hunt (1996)		Adherence to rules Industriousness Thoroughness Schedule flexibility Attendance	Off-task behavior Unruliness Theft Drug misuse	
Allworth and Hesketh (1999)	Task performance	Contextual performance		Adaptive performance
Viswesvaran and Ones (2000)	Task performance	Organizational citizenship behavior	Counter productive behavior	
Michel (2000)	Task performance	Interpersonal performance		
Pulakos et al (2000)	Task performance	Contextual performance		Adaptive performance

Source: Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Schaufeli, W. B., de Vet Henrica, C. W., & van der Beek, A. J. (2011).

For the purpose of getting a comprehensive understanding on the holistic concept of job performance, it must be measured from two aspects; task performance and contextual performance (Borman, 2004a; Borman & Motowidlo, 1993; Campbell, 1990; Jex & Britt, 2008; Van Scotter, 1994).

2.2.2.1 Task Performance

Traditionally, task performance has received most attention from the job performance aspect. Campbell (1990) distinguished it as the proficiency with which individuals perform the core substantive or technical tasks central to his or her job. Task performance is also identified as the proficiency (i.e., competency) with which one performs essential job tasks (Beaton et al., 2009). Some scholars have described task performance as *job-specific task proficiency* (Griffin & Parker, 2007; Wisecarver, Carpenter & Kilcullen, 2007; Campbell, Ford & Rumsey, 1990; Rollins & Fruge, 1992), *technical proficiency* (Lance, Teachout & Donnelly, 1992; Campbell, Hanson, & Oppler, 2001; Campbell, McHenry, & Wise, 1990) or *in-role performance* (Maxham, Netemeyer, & Lichtenstein, 2008; Bakker, Demerouti, & Verbeke, 2004). For them, task performance comprises job quantity, job quality and job knowledge.

Katz and Kahn (1978) defined task performance as role-prescribed behaviors while Campbell, McHenry & Wise (1990) and Luo, Shi, Li and Miao (2008) defined it as core-tasks, or tasks that involve the maintenance of the technical core towards the organization. Murphy (1989) labeled task behavior which might be considered task performance while Campbell (1990) acknowledged on his first two scope as ―job-specific task proficiency (core job tasks)” and ―non-job-specific task proficiency (tasks not specific assign to a given job, but expected of all employees)”. From the human resource management perspective, task performance has been measured using a range of criterion measures, including supervisory ratings, productivity indexes, promotability ratings, sale total, and turnover rate. However, Gomez-Mejia, Hynes, Nunez-Nickel, and Moyano-Fuentes (2007) mentioned that task performance should be characterized into quality of work done, quantity of work performed, and interpersonal effectiveness. According to Motowidlo (2003), task performance or in-role behaviors are defined as the organization‘s total expected value on task associated proficiency of an employee.

Johari (2010) found that task significance, feedback and codification are positively associated on work involvement among public servant. Furthermore, skill variety had positive influence on overall job performance of public servants while job codification negatively influenced the overall job performance. However only work involvement had a significant relationship on task performance but not OCB. Thus, researchers have conceptualized task performance as behaviors that directly or indirectly contributing towards the technical core and behaviors that are accepted as part of the job or description (Campbell, 1990; Katz & Kahn, 1978; Murphy, 1989).

2.2.2.2 Contextual Performance

Contextual performance has been characterized as performance with the aim of informal requisition as part of the job but helps outline the social and psychological perspective of each institution (Borman & Motowidlo, 1993). In other words, contextual performance has been considered as behaviors that help support incumbents of performing the task performance and the behavior is crucial to remain organizational effectiveness in the long term. Contextual performance consists of two facets, namely; interpersonal facilitation and job dedication. Interpersonal facilitation comprises cooperative, considerate, and helpful acts that assist co-workers' performance, while job dedication comprises self-disciplined, motivated acts such as working hard, taking initiative, and following rules to support organizational objectives (Van Scotter & Motowidlo, 1996). Contextual performance and its associated components such as organizational citizenship behavior (Bateman & Organ, 1983; Smith, Organ & Near, 1983), prosocial organizational behavior (Brief & Motowidlo, 1986) and extra-role performance (Van Dyne, Cummings & Park, 1995) are found to be the contributors to organizational effectiveness.

Based on Campbell's framework, six dimensions could be considered as contextual performance; written and oral communications, demonstrating effort, maintaining personal discipline, facilitating peer and team performance, supervision and leadership, and management and administration (Campbell, 1990). Another important finding was from Viswesvaran's study whereby he included six dimensions of contextual performance as communication competence, effort, leadership, administrative competence, interpersonal competence, and compliance with/acceptance of authority.

From the aspects of job performance, it is important to achieve organizational objectives through task performance which is concerned with behaviors that are necessary to protect and upgrade the organizational, social, and psychological environment (Jex & Britt, 2008; LePine, Hanson, Borman, & Motowidlo, 2000; Van Dyne et al., 1995; Van

Scotter & Motowidlo, 1996), while contextual performance supplements task performance because its main purpose is assisting organization to achieve its targets (Black & Porter, 1991; Jahangir, Akbar & Haq, 2004; Luo, Shi, Li & Miao, 2008).

2.3 Knowledge Management

Knowledge management (KM) in the public sector can be crucial because it greatly influences and improves the public sector renewal processes (Edge, 2005). In fact, McAdam and Reid (2000) mentioned that within the public sector KM ―is a powerful enabler in the current drive for increased efficiency in all areas (p. 328)”. Edge (2005) further argued that developing a KM culture within the public sector is more challenging than in the private sector and this argument was supported by Amayah (2013) as ―organizational goals in public organizations are typically more difficult to measure and more conflicting than private organizations, and they are affected by political influences (p. 456)”. Shields, Holden and Schmidth (2000) analyzed KM initiatives and the impact of K-Economy in the public service sector. The major finding discovered that knowledge and information initiatives are essentially political and provide an irregular effect on diverse public sector workforces, client groups and members of the community. Wiig (2002) investigated and found that KM played an important role in public administration particularly in four main areas; enhancing decision-making within public services, aiding the public in participating effectively in decision making, building competitive societal intellectual capital capabilities, and developing a KM workforce.

Knowledge management is not a new concept. It has been defined in diverse ways and from different perspectives. Human beings have been building knowledge learned all throughout their lives. Individuals turn to history books for knowledge about the past so they do not have to keep repeating mistakes or reinventing the same implements and programs. And yet when individuals have gathered knowledge, they have begun to manage it sometimes unconsciously, sometimes quite deliberately to make the best use of what they do know and to identify what they do not know. Even in a work environment with the supports of technology, knowledge management is not reliant on a software system. Software is capable to make it easier to manage knowledge, but it is not a precondition for beginning of ways to capture and develop on the expertise in an organization. Knowledge management is not once-a-time event. It is considered an ongoing process that needs constant maintenance otherwise it would become obsolete.

The concept of knowledge management was first introduced in 1950 by Peter Drucker with the notion of ―knowledge workers”. Knowledge workers were defined as people who are able to use the organization‘s knowledge to create intangible products. Several organizations would informally, although not purposely would apply knowledge management techniques either in the decision-making process or in producing goods and services. What is new in knowledge management can be characterized as ―the act of being aware of the existence of a knowledge management process”. Knowledge management could also be acknowledged as an aggregation of instruments and skills which every organization must develop in order to manage the knowledge as resource and asset (Marilena & Mihaela, 2008).

2.3.1 Definition of Knowledge Management

Knowledge Management (KM) practice can be defined as the acquisition, sharing and use of knowledge within organizations, including learning processes and management information systems. The combination of information and communication technologies and the advent of new tools such as intranets and groupware systems emphasize the importance of targeting knowledge rather than information or data. Knowledge management has also been described as a systematic process for capturing and communicating knowledge which people can use (Moballeghi & Galyani Moghaddam, 2011). People should understand what their knowledge assets are and how to profit from them. Basically it is sharing what people know with others (Moballeghi & Galyani Moghaddam (2011). Knowledge management is also identified as a structured and organized effort to use knowledge surrounded by the organization to provide services to the public and to improve performance (Syed-Ikhsan & Rowland, 2004), while Sandhu, Jain and Ahmad (2011) defined knowledge sharing as a transfer of valuable facts, beliefs, and perspectives, concepts learned through study, observation or personal experience from knower to knowee.

Most definitions emphasize on human know-how and how it brings value to an organization. Nevertheless, employing individual proficiency in order to obtain the greatest output for an organization is not an easy task. According to Atwood (2009) managing knowledge is identifying useful knowledge that exists in the organization and making it available to others to use or build on. A number of terms have appeared to share the same concept of knowledge management. Among them are knowledge sharing, information management, knowledge focus, environment management, knowledge capture systems, idea sharing, knowledge integration, knowledge mobilization and intellectual asset management. However, the term knowledge management is most widely recognized at this time.

Knowledge management can also be seen as the process where organizations create, capture and reuse knowledge to achieve organizational objectives. Accordingly, knowledge management is defined as:

- The process of capturing the collective expertise and intelligence in an organization and using them to foster innovation through a continuously learning organization (Bawany & Associates, 2004; Edwards, Collier & Shaw, 2005 & Guptara, 1999).
- A process of leveraging and articulating the skills and expertise of the employees with the support of information technology (Chong, Holden, Wilhelmij & Schmidt, 2000).
- The process of creating, capturing and using knowledge from an organization‘s intangible assets to enhance organizational performance (Kassim, 2003).
- The systematic, explicit and deliberate building and renewal and application of knowledge to maximize an enterprise‘s knowledge-related effectiveness and returns from its knowledge assets (Wiig, 1997)
- A process of knowledge creation, validation, presentation, distribution and application (Bhatt, 2001).

Even though the given definitions differ in the earlier explanation of KM, still knowledge management is treated as a process of leveraging of knowledge as the means of achieving innovation in process and products/services, effectiveness about decision-making process and organizational adaptation to the market.

Another perspective given by Marilena and Mihaela (2008) specifically defined knowledge management as the process throughout whereby it involves the knowledge organization and coordination;

- Grouping different types of knowledge into categories, starting from the main organizational sources and up to the emergence of the internal memory,
- Stocking knowledge, which means keeping it in safe conditions in the knowledge infrastructure of the organization,
- Classifying knowledge, in order to assess it and prioritize the specific bits that reflect the quality of knowledge, respectively the degree of adaptation to the requirements of processes,
- Selecting knowledge, which allows the user to apply specific criteria to identify the most appropriate knowledge, and
- Disseminating knowledge, through which knowledge stocked under various forms (tacit or explicit) are accessed by all the members of the organization and even by its stakeholders such as clients, suppliers and others.

2.3.2 Dimensions of Knowledge Management

According to Nonaka (1994), knowledge can be divided into two elements; explicit knowledge and tacit knowledge. Explicit knowledge is defined as knowledge that is formal, systematic and can be codified into records, databases (Polanyi, 1958; 1966), and tacit knowledge or implicit is the knowledge that is personal, intangible and embedded in the cognitive minds of people and is obtained through learning and experience (Polanyi, 1958; 1966). This type of knowledge is difficult to transmit because it derives from the individuals‘ experience and characteristics. Furthermore, tacit knowledge is less concrete compared to the explicit knowledge, complicated to gain access to and frequently not shared with others.

Knowledge Management process can also be classified into the four following diverse components;

a) Knowledge acquisition - This is the first process of KM which highlights and provides special importance to individual knowledge capability in the organizations which involved the activities of the accessibility, collecting and application of acquired knowledge. (Nonaka & Takeuchi, 1995). Knowledge acquisition can be achieved both from internal knowledge resources such as knowledge about work practices, reports and documents of various knowledge. Next, from external knowledge resources it includes environmental data, clients‘ data, competitors‘ data and other resources including external benchmarking (Marquarde, 1996; Zack, 1999).

b) Knowledge creation - Knowledge creation is the generative, meaning the creation of new knowledge which associated with motivation, intuition, expertise and insight that arise in an individual (Gold, Malhotra & Segars, 2001; Tiwana & Mclean, 2005). The creation of knowledge is the interaction of knowledge, between the tacit knowledge and explicit knowledge or known as “SECI Model” (Nonaka & Takeuchi, 1995).

c) Knowledge storage - It means that all knowledge which was formed should be kept and synchronized systematically so it is hoped to be easily and simply accessed, becoming “knowledge retrieval” (Marquarde, 1996). Since both of tacit and explicit knowledge will be stored, it needs to be more efficient in term of the data storage such as good structural designs and convenience in retrieving.

d) Knowledge application - This is the final process of KM whereby it can be the value of organization and it could make the organizations remain the usefulness of KM. It also involves knowledge transfer and knowledge utilization (Marquarde, 1996; Gold, Malhotra & Segars, 2001; Zack, 1999). Knowledge transfer could be utilized in various ways either official or unofficial. For example, it can be throughout a range of media, conferences, study tours, transform of roles or duties, supervision system and teamwork (Marquarde, 1996).

Lee, Lee and Kang (2005) further distinguished knowledge circulation process into five components;

a) Knowledge creation - It deals with a range of knowledge, either tacit or explicit and it accelerates by encouraging synergistic interrelations of individuals from diverse backgrounds. Two constructs are measured; task understandings and information understandings.

b) Knowledge accumulation - Each of the persons in the organization ought to have permission to the base for the purpose of obtaining the relevant knowledge to aid in their work and decision making. The instrument to assess knowledge accumulation uses three constructs; database utilization, systematic management of task knowledge and individual capacity for accumulation.

c) Knowledge sharing - It involves the promotion dissemination of knowledge and also contributes to making the work process astute and knowledge intensive where workers consider themselves to be knowledge workers. It is measured by the core knowledge sharing and knowledge sharing.

d) Knowledge utilization - It occurs at all levels of management activities in firms, one if the popular form of knowledge utilization is to adopt the best practice from other leading organizations, uncover relevant knowledge, and apply it (Lee, Lee & Kang, 2005). Two constructs of knowledge utilization are degree of knowledge utilization in organization and knowledge utilization culture.

e) Knowledge internalization - This could happen once individual workers find out relevant knowledge, gain it and then practice it. It might contribute more to new knowledge. It is measured by three dimensions namely; capability to internalize task-related knowledge, education opportunity and level of organization learning.

There are also KM measurement developed by scholars such as Knowledge Management Practices Index (KMPI) (Lee, Lee & Kang, 2005); Knowledge Management Capability (KMC) and Knowledge Management Maturity (KMM)

(Kulkarni & St. Louis, 2003), and User Satisfaction with Knowledge Management System (USKMS) (Ong & Lai, 2004).

2.4 Corporate Entrepreneurship

Corporate entrepreneurship (CE) has becoming an increasingly important area in business and management. It has been identified as an overall construct capturing all entrepreneurial activities in incumbent organizations (Sharma & Chrisman, 1999). The earlier term for corporate entrepreneurship was ―intrapreneurship” which was coined by Pinchot (1987) as entrepreneurship within organizations. He defined intrapreneurship as the identification and exploitation of opportunities within incumbent organization, and intrapreneurs as in-house entrepreneurs, those dreamers who can increase the speed and cost-effectiveness of technology transfer from R & D to the marketplace. Other terms that can be referred to corporate entrepreneurship include entrepreneurial strategic posture, entrepreneurial orientation, corporate ventures, venture management, new venture and internal corporate venturing (Covin & Slevin, 1989; Lumpkin & Dess, 1996; Ferreira, 2002).

2.4.1 Definitions of Corporate Entrepreneurship

Sharma and Chrisman (1999) defined CE as ―…the process whereby an individual or a group of individuals, in association with an existing organization, create a new organization or investigate renewal or innovation within that organization (p. 18).” It is a strategic renewal whereby the conceptualization or the entrepreneurial efforts that result in significant changes to an organization's business or corporate level strategy or structure (Guth & Ginsberg, 1990). Covin and Miles (1999) defined it as the presence of innovation with the object of rejuvenating or redefining organizations, markets, or industries in order to create or sustain competitive superiority. From these definitions, the concept of public entrepreneurship emerged. It integrates and builds on the forging concepts as well as on the concept of entrepreneurial government linked to the new public management (Edwards, Jones, Lawton, & Llewellyn, 2002). Stone (1992) called it an organizational process involving innovation, risk and pro-activity which resulted in a disjuncture from standard operating procedures and responses by current system in order to achieve public purpose while Mahmood and Nayyar (2010) defined it as a powerful form of public entrepreneurship that prevails within a public or non-public organizational promoting non-bureaucratic mechanisms to remedy a fundamental problem of traditional bureaucracy by changing organizational structures, processes, and cultures through the dimensions of risk-taking, innovation, and proactiveness: inclined to shared governance, reduction of red tape, promotion of customer satisfaction, empowerment of employees, more responsive to its stakeholders, and promotion of cost-efficient performance. Antoncic and Hisrich (2003) defined intrapreneurship as an emergent behavioral intentions and behaviors that are related to departures from the customary ways of doing business in existing organizations.

Generally, the accepted definition of corporate entrepreneurship from private sector includes the three dimensions; risk-taking, innovativeness and proactiveness (Collins & Moore, 1970; Miller, 1983; Mild & Arnold, 1991; Morris & Jones, 1999; Naman &

Slevin, 1993), and these could be applied to the public sector (Yonhee, 2007). Morris and Jones (1999) acknowledged the three components of public sector entrepreneurship to include innovativeness, risk taking, and proactivenesss. Innovativeness is inclined to be more concerned with novel process improvement, new services, and new organizational forms; risk-taking includes pursuing initiative that have a calculated likelihood of resulting in loss or failure, and proactiveness means action oriented that includes creative interpretation of rules, skills at leveraging of resources, and high level of tolerance in effecting change.

Meanwhile Lumpkin and Dess (1996) defined entrepreneurial orientation as the processes, practices and decision-making activities that guide to new entry. They added two more dimensions; autonomy and competitive aggressiveness to describe the entrepreneurial behavior of the organization. The five key dimensions underlying the intrapreneurial orientation are;

- Autonomy- independent action and self-direction,
- Innovativeness- new ideas, experimentation and creativity,
- Rick-taking- venturing into uncertainty and committing assets,
- Pro-activeness - acting in anticipation of future problems or needs, and
- Competitive aggressiveness- strongly challenging competition to achieve or improve position.

Previous studies on corporate entrepreneurship or entrepreneurial orientation were on firm-level contributions (Rauch, Wiklund, Lumpkin & Frese, 2009; Lumpkin, Cogliser

& Schneider, 2009; Ling, Simsek, Lubatkin & Veiga, 2008) and only few were focused on individual-level perspective (Monsen, Patzelt & Saxton, 2010; Marvel, Griffin, Hebda & Vojak, 2007). Covin and Slevin (1989, 1990), Russell, (1999), and Miller (1983) for example defined entrepreneurial orientation as ―strategic posture" of a firm that measures a firm‘s overall competitive orientation. The position could be considered as directly influence organizational performance and in turn is manipulated by few factors such as business and mission strategies, environmental characteristics and organizational variables such as structures, culture and resources. They identified the dimensions of entrepreneurial orientation as risk taking, innovation and proactiveness.

However, De Jong et al., (2011) defined corporate entrepreneurship from the individual perspective as the identification and exploitation of opportunities by individual workers that (also) advance the organization. This definition was taken from Miller‘s (1983) conceptualization of the entrepreneurial organization with such behavior that could be seen as refering to individuals‘ innovation, proactive and risk-taking behaviors. Therefore corporate entrepreneurship is the process by which individuals inside organizations pursue opportunities without regard to the resources they currently control.

2.4.2 Dimensions of Corporate Entrepreneurship

Lumpkin and Dess (1996) conceptualized entrepreneurial orientation (corporate entrepreneurship) as a multidimensional construct consisting five separate dimensions of autonomy, risk taking, proactiveness, innovativeness and competitive aggressiveness which independently and collectively defined the domain of CE (Covin & Wales, 2012).

According Lumpkin and Dess (1996, 2001) entrepreneurship can be better explained when all three dimensions are considered as independent from each other. Kreiser, Louis and Weaver (2002) supported that each dimension of entrepreneurial orientation may have a different relation with performance variable. However, Covin and Slevin (1990) contended that entrepreneurial orientation would be best measured as a unidimensional construct and its unidimensional was supported by a number of studies (Covin & Slevin, 1989, 1991; Covin & Wales, 2012; Knight, 2000). Therefore corporate entrepreneurship was also measured as unidimensional construct consisting three dimensions of innovativeness, risk-taking and proactiveness (George & Marino, 2011; Kresier, Marino, Kuratko & Weaver, 2013, 2010; Li, Zhao, Tan & Liu, 2008; Wiklund & Shepherd, 2005).

- Innovation

Innovation is an integral dimension of the entrepreneur concept, involving alertness to opportunities, the willingness to take risks and the ability as an incentive to take action. Innovation requires initiatives and the ability to function under uncertain conditions. An economist Schumpeter (1934) defined innovation as "the novel recombination of pre-existing factors of production or a change in the production function which describes the way in which quantity of product varies if quantities of factors vary. Instead of differentiating the quantities of factors, the form of function differs and this creates innovation. In other words, innovation is the setting up of new production function" (Schumpeter, 1934). The innovation element is "the tendency of a firm to engage in and support new ideas, novelty, experimentation and creative processes that may result in new products in new products, services or technological processes" (Lumpkin & Dess, 1996, p. 142). Teece, Pisano and Chuen, (1997) stated that innovation can be a way to the improvement of main capabilities which could enhance the firm‘s performance.

Meanwhile, Zahra and Garvis (2000) supported that with innovation the firm‘s profitability would be able to improve and help in its growth. Morris and Jones (1999) asserted that innovativeness in the public sector will have a tendency to be more concerned with original process improvements, new services and new organizational forms. Therefore, both public and private sector innovations need to be encouraged and facilitated through new ideas and the creative process that enhance efficiency and effectiveness within the organization.

- Risk taking

Responsibility is an important factor in risk taking. In the private context, the responsibility is to the company and self while in the public sector, responsibility is to the public and self. Risk-taking in the public sector means assuming personal risks involved in accomplishing the broader interests of society. Cantillon (1755) was among the first person who defined an entrepreneur as a person who bears the risk of loss and risk taking is considered a fundamental element of entrepreneurship (Antoncic & Hisrich, 2003). Rauch, Wiklund, Lumpkin and Frese, (2009) explained in the entrepreneurship literature that risk-taking involved taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in unknown environments. Generally entrepreneurial activities such as innovation, venturing and strategic renewal involve calculated risk, and due to the time constraint, effort and resources should be contributed before the outcome is known. The issue of risk taking is a main element in the study of entrepreneurial behavior. Risk taking is the degree to which managers are willing to make large and risky resource commitments- for example those which have a reasonable chance of costly failures (Miller & Friesen, 1978).

- Proactiveness

Proactiveness is the initiative and willingness to act and pursue opportunities when they come along. Pro-activeness involves the active search for creative solutions, service delivery, getting an initiative to introduce change, implementation and react to opportunities and utilizing the best resources. Lumpkin and Dess (1996) defined proactiveness as ―acting opportunistically in order to shape the environment by influencing trends and creating demand and becoming a first mover in a competitive market. It has also associated with a reaction to opportunities. Furthermore, the proactive firms capture alternative ideas and make it into marketable ideas by exploiting new initiatives. Morris and Jones (1999) stated that ―proactiveness entails an action-orientation and an emphasis on anticipating and preventing public sector problems before they occur. This action-orientation includes creative interpretation of rules, skills at networking and leveraging of resources, and a high level of persistence and patience in affecting change”. According to Rauch et al., (2009), proactiveness is an ―opportunity-seeking, forward-looking perspective characterized by high awareness of external trends and events and acting in anticipation thereof”.

Previous studies have employed some measurements on corporate entrepreneurship such as Intrapreneurship Assessment Instrument (AIA) (Kuratko, Montagno & Hornsby, 1990) which was later revised as Corporate Entrepreneurship Assessment Instrument (CEAI) and Corporate Entrepreneurship (Scott & Bruce, 1994). However, this study used Covin and Slevin‘s (1990) three dimension construct to measure corporate entrepreneurship at the individual level. Past studies have provided evidences that the three dimensions have positive impact on performances (Begley & Boyd, 1987; Kreiser, Louis & Weaver, 2002; Lumpkin & Dess, 1997, 2001).

2.5 Public Service Motivation

The topic of motivation had been examined extensively by both psychology and sociology researchers. While psychologists mainly looked for answers in internal mental processes, sociologists tried to incorporate psychological knowledge into the complex reality of modern human beings (Chimiak, 2006). In 1940s, scholars began to analyze motivation differences at institutional levels. For example, Parsons (1940) proposed a theory of motivation for economic activity, and he posited that motivation is organized around social institutions. In the 1960s, sociologists began to differentiate between social motivation with emphasis on external and internal situational factors (Cofey & Appley, 1964). McClelland also (1961) introduced the concept of achievement motivation. It posits that people with achievement motivation exhibit role behavior such as moderate risk taking, energetic and instrumental activity, taking responsibility, knowledge of results of decisions, and anticipation of future possibilities. McClelland (1962) further refined the roles as taking responsibility of problem solving, establishing goals, taking moderate risk, and looking for feedback on performance.

Abraham Maslow in 1970 theorized the concept of the hierarchy of human needs. Hardy (1976) later extended this theory and named three components to his motivation model as follows; needs (individual's own requirement), results (preferred outcomes), and effectiveness (energy, excitation, enthusiasm, emotion, expenditure). His theory suggests that decisions are undertaken within a psychological contract with other groups, where the contract is the mixture of coercive and cooperative types of behavior.

Public service motivation (PSM) is a theoretical tool established to measure the motivational differences between employees in the public and private sectors (Brewer & Selden, 1998; Perry, 1996). Previously numerous studies were conducted to examine the differences in personalities, interest, motives and attitudes between the sectors. Most public sector employees rank social and personal rewards higher than monetary rewards whereas the opposite is true for private sector employees (Dilulio, 1994; Rainey, 1997; Crewson, 1997). Public sector employees were also found to possess more altruistic attitudes and exhibit stronger feelings of civic duty (Rainey, 1997; Conway, 2000). Thus PSM viewed public sector employees as characterized by an ethic to serve the public, their commitment to the public interest, desire to serve others and to self-sacrifice. They are imbued with the idea to do good deed for others and shape the well-being of society (Perry & Hondeghem, 2008; Kim & Vandenabeele, 2010).

The theory of PSM has defined public service motivation ―as that some individuals have a predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations (p. 368)" (Perry & Wise, 1990). The components of PSM are classified as rational, affective and norm. Rational motives are based from individual aspect due to accomplishing the greatest aim either for his or her satisfaction. It can be achieved once he or she gets involved in the policy formulation' process. With the involvements, it helps an individual by results motives in their job and develops their self-image. Rational motives could be acknowledged as a push factor to an individual due to the reason for his or her attraction to public policy making, commitment to a public program and satisfaction in providing public service (Perry & Wise, 1990).

Affective motives are based in human emotion, and characterized by a desire and willingness to help others. It includes altruism, empathy, moral conviction and other prosocial desires, while Norm-based motives are consent about qualities of public workers while giving required tasks to the publics. Therefore, this motives result in an effort to offer public services at every level with the same standard operations without any bias. This type of motives also leads to other major motive namely loyalty on duty based on the concepts of social equity and social justice.

Perry (1996) initially initiated 40 items related to PSM, and later revised the measurement scale to 24 items under four empirical dimensions; attraction to public policy-making, compassion, self-sacrifice and commitment to public interest. Attraction to policy making is the employee's strong desire to participate in the formulation of public policy, thus reinforcing one's image of self-importance, Commitment to public interest is the employee‘s strong need to serve in the public interest, involving a unique sense of civic duty, Compassion which refers to the employee‘s strong desire for patriotism and benevolence, and Self-sacrifice where an employee‘s strong desire to act for causes that protect, advocate and work for the good of the public regardless of personal consequences. These four dimensions PSM was generally supported by many scholars such as Bright (2008), Coursey and Pandey (2007), Kim (2009), Liu, Tang and Zhu (2008), Ritz (2009), and Vandenabeele (2008).

As an outcome, generally, the theory is applied to propose that individuals with higher PSM are more likely to be found working in government because of the opportunities it offers to provide meaningful public service, and to perform better in and feel more satisfied with- the public sector jobs because they find this type of work intrinsically rewarding (Wright & Grant, 2010). Perry and Wise (1990) also mentioned that motivation of public service must be justified as psychological deficiencies or needs; while individuals contribute to the public good to with the purpose of convince their personal needs. Perry and Wise (1990) described public service motivation as a person‘s susceptibility to motives oriented mainly to the public institutions. In other word, PSM is an employee‘s motive brought to the work situation (Perry & Porter, 1982) and such that the greater an individual‘s public service motivation, the more likely the individual will seek membership in a public organization (Perry & Wise, 1990). Later, Wise (2000) revised the definition to include the needs to perform acts of public service and to contribute to the advancement of the quality of life in society.

Rainey and Steinbauer (1999) defined PSM as a general altruistic motivation to serve the interests of a community of people, a state, a nation, or human kind, while other studies operationalized public service motivation as work-related values or reward preference such as the employees‘ desire to help others, benefit society, or engage in meaningful public service (Wright & Pandey, 2008). PSM is also referred as ―the belief, value and attitudes that go beyond self-interest and organizational interest, that concern the interest of larger political entity and that motivate individuals to act accordingly whenever appropriate (p. 549)" (Vandenabeele, 2007).

Public Service Motivation (PSM) has emerged as a comparative and contrasting concept between public and private sectors. Motivation to work for the public interest is what distinguishes public workers from private sector employees, and they have different motivations and rewards expectations than their private sector counterparts (Kim, 2009; Houston, 2008; Crewson, 1997; Rainey, 1991). Nevertheless, PSM is not simply a theory of public employee motivation, it can represent an individual‘s predisposition to enact altruistic or pro-social behaviors regardless of setting, even in private or non-profit organizations as well (Perry & Hondeghem, 2008; Taylor, 2010; Pandey et al., 2008).

The concept of PSM has begun to spread around the globe. Originally tested in the United States (Perry, 1996, 2000; Crewson, 1997; Houston, 2006; Camilleri, 2007), it has found application in other countries such as France (Castaing, 2006), the UK, Germany, (Vandenabeele, Scheepers & Hondeghem, 2006), Switzerland (Ritz, 2011) and Australia (Taylor, 2007). Despite the substantial knowledge on PSM in most developed western countries, there is a gap in comprehensive studies in the developing countries (Ritz, Brewer & Neumann, 2013) with the exception of some Asian countries such as Korea (Choi, 2001; Kim, 2006), China (Liu, Tang & Zu, 2008), and Indonesia (Yanti, 2012).

2.6 Organizational Commitment

Organizational commitment (OC) is another work-related attitude considered important in this study. It is considered the basis for introducing the human resource (HR) management policies within the organizations because the HR policies normally would have the major target of raising the levels of commitment with hope that positive results would prevail (Adler & Corson, 2003; Kuvaas, 2003). Organizational commitment has built its popularity through the writing from the industrial and organizational psychology perspectives (Cohen, 2003). Meyer and Maltin (2010) attempted to clarify the commitment concept. Taken into consideration the well-established three-component model (Meyer & Allen, 1991, 1997; Meyer & Herscovitch, 2001) they viewed commitment as a force that binds an individual to a target (social or non-social) and to a course of action of relevance to that target (Dick, Becker & Meyer, 2006).

Organizational commitment refers to the relative strength of an individual‘s identification with, and involvement in a particular organization. Commitment represents something beyond mere passive loyalty to an organization. It involves an active relationship with the organization, such as individuals are willing to give something of them in order to contribute to the organization‘s well-being (Dilulio, 1994). Commitment can be expressed not only from the expressions of person‘s beliefs and views but also from his or her actions (Mowday, Steers & Porter, 1979).

Pioneer studies on organizational commitment focused the concept as a single element with the basic lying on an attitudinal perspective, embracing identification, involvement and loyalty (Porter, Steer, Mowday & Boulian, 1974). Acording to Porter et al., (1974) an attitudinal perspective is the psychological connection or affective commitment created by an employee in relation to his recognition and participation with the respective organization. Organizational commitment, therefore, is an attachment to the organization to the organization, characterized by an intention to remain in it, identification on the values and goals of the organization, and a willingness to exert extra effort on its behalf. Individuals regard as the scope whereby their own values and aims convey to the institute as part from his/her organizational commitment. Organizational commitment is also viewed as an exchanged-based definition or ―side-bet” theory as introduced by Becker (1960) and Alluto, Hrebiniak and Alonso (1973). The argued that those individual employees should be dedicated to the organization as long they are attached with the positions as well as the negative impact of the stressful condition they need to face.

Organizational commitment is also defined as the character about the association among an individual and the employment society. Those highly dedicated person will be a symbol of a strong aspiration to stay with the particular organization, readiness to contribute on high levels effort on behalf of the organization and a specific trust, the acceptable of values and goals on each organization (Allen & Meyer, 1990; Mowday, Steers & Porter, 1979). O'Reilly (1989) defined organizational commitment as an individual's psychological bond to the organization, including a sense of job involvement, loyalty and belief in the values of the organization, while Miller and Lee (2001) viewed it as characterized by employee's acceptance about the organizational goals and the willingness to make use of effort on behalf of the organization.

According to Meyer and Allen (1991) organizational commitment is a psychological state that characterizes the employee's relationship with the organization, and has implications for the decision to continue membership in the organization. Cohen (2003) described it as a force that binds an individual to a course of action of relevance to one or more targets while Arnold (2005) saw it as the relative strength of an individual's identification with and involvement in an organization. Miller (2003) also defined organizational commitment as a state in which an employee identifies with a particular organization and its goal, and wishes to maintain membership in the organization. Therefore, organizational commitment can be referred to the extent whereby worker is agreeable to remain his/her loyalty based on the importance and relationship related with the organization's values and aims.

Meanwhile, Cooper-Hakim and Viswesvaran (2005) has conceptualized organizational commitment as a psychological state or mindset that binds individuals to a course of action relevant to one or more targets, and a willingness to persist in a course of action, whereby Porter et al. (1974) as cited in Yeh and Hong, (2012) characterized organizational commitment into three components; a strong belief in and acceptance of the organization's goals, a willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership. Commitment is dissimilar from motivation where the former influences behavior independently of other motives and attitudes. It might also cause to determination to a track of action even if this conflicts with motives (Meyer, Becker, & Vandenberghe, 2004; Meyer & Herscovitch, 2001). Even though there appears to be various definitions and measures of organizational commitment, it shares one common proposition that OC is considered to be a bond of the individual to the working organization (Camilleri & van der Heijden (2007).

Meyer and Allen (1991) have also popularized organizational commitment into three distinct psychological states namely; affective commitment, continuance commitment and normative commitment. Effective component is the employee's emotional attachment, identification with and involvement in the organization, thus leading to specific job-related behavior (Camilleri & van der Heijden, 2007), continuance or calculative commitment refers to an awareness of the costs associated with leaving the organization (Hrebiniak & Alutto, 1972), and normative commitment which reflects a feeling of obligation to continue employment within the organization. Organizational commitment also describes a process and organizational actions such as selection, socialization and procedures as well as individual predispositions (i.e., loyalty attitudes) (Meyer, Becker, & Vandenberghe, 2004). Although Meyer and Allen (1991) indicated that each dimension of OC was independent of the others, most researchers have considered it as a unidimensional instrument (Hoang, 2012).

2.7 Underpinning Theories

Three theories were adopted to underpin this study; Resource-Based View (RBV), Knowledge-Based View, and Expentancy Theory of Motivation. According to Zikmund, Babin, Carr and Griffin (2013), a theory is important in research because it is a testable formal explanation of some events which includes the predictions on how things are related to one another. Theory also offers basis for knowledge and it helps in understanding important relationships within the discipline of study. It advances science by providing efficiency, cohesion, and a structure to research questions and designs, and guides the researcher to further investigate and identify factors or variables apart from providing reasoning for their relationships (Smith & Hitt, 2005).

2.7.1 Resource-Based View (RBV)

The resource-based view sees the firm as a bundle of productive resources (Penrose, 1959). According to this theory, the competitive advantages for the firm are generated from the unique resources that the firm owns (Barney, 2001; Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). The theory further explains why firms are different and how firms achieve and sustain competitive advantage by deploying their resources. This idea of competitive advantage in RBV was contributed by early scholars such as Selznick (1957) on ‗an organization‘s distinctive competence‘, Chandler (1962) on ‗structure follows strategy‘, as well as Andrews (1971) on ‗internal appraisal on strengths and weaknesses‘. Since then others like Barney (1991), Dierickx and Cool, (1989), Priem and Butler (2001), Rumelt and Lamb, (1984), Teece, (1998), and Wennerfelt (1984) have all made influential contributions to the RBV in the past five decades. The RBV has also been extensively used as a practical tool for managers in the industry, as well as becoming an academic focus for scholars in exploring the relationship between a firm's resources and its economic performance (Hansen, Perry & Reese, 2004).

Earlier, Penrose (1959) argued that a firm as a bundle of resources is heterogeneity, and not homogeneity, and that the productive services are accessible from its resources with its unique character. Therefore, the firm's resources heterogeneity is the root of the RBV. Penrose (1959) described a firm's resources as physical and human. Physical resources consist of tangible things such as plant, equipment, land and natural resources, raw materials, semi-finished goods, waste products and by-products, and even unsold stocks of finished goods, while human resources are unskilled and skilled labor, clerical, administrative, financial, legal, technical, and managerial staff. Barney (1991) provided the required characteristics of firm resources for the purpose of generating sustainable competitive advantage. The characteristics are valuable (in the sense that they exploit opportunities and/or neutralize threats in a firm's environment), rare (among a firm's current and potential competitors), inimitable and non-substitutable (VRIN). Non-substitutable is a resource that cannot be replaced by another resource that could deliver the same effect (Bowman & Ambrosini, 2003). These resources that the firm controls have major impacts on the strategies and the business objectives (Wernerfelt, 1984; Barney, 1991 & Amit & Schoemaker, 1993). Further, resource combinations, and/or capabilities/competencies are more tended to clarify performance differences rather than single resources in isolation (Newbert, 2007; 2014). Bowman and Ambrosini (2003) added that the resources which prove to be valuable, rare, inimitable and non-substitutable (VRIN) contribute to competitive advantage of the organization by delivering products and/services perceived good quality by customers or use processes that lower unit costs.

The resource-based view has also defined resources as tangible and intangible (Wernerfelt, 1984). Tangible resources are fixed and current assets belonging to the firm, they have a fixed long-term capability such as being physical and financial resources. Intangible resources include intellectual property (IP) such as trademarks, copyrights and patents as well as company networks, databases and brand and company reputation. Thus firms with superior resources have the basis for achieving sustainable competitive advantage (Peteraf, 1993).

The resource-based view normally allows firm to determine the value of resources and consider how to redeploy or recombine resources to generate new strategic capabilities (Barney & Arikan, 2001). However, resource-based view can also be applied to the individual level of analysis or the microfoundation perspective (Felin & Foss, 2009; Barney, Ketchen & Wright, 2011; Coff & Kryscynski, 2011; Foss, 2011; Khan, 2013 & Barney & Felin, 2013 & Teece, Pisano & Shuen, 1997). The notion of micro-foundation has emerged as an important theme in management research (Foss, 2010), and it focuses on individual actions and interactions (Udenhn, 2001). The dominant motivation for the micro-foundation research program has been focused to understand how individual-level factors affect organizations, how the interaction of individuals leads to emergent, collective and organization-level outcomes and performance (Abell, Felin & Foss, 2008).

The microfoundation perspective of RBV focuses on how firms utilize their people to gain competitive advantage, ensuing for better performance (Barney, Ketchen & Wright, 2011; Eisenhardt, Furr & Bingham, 2010; Foss & Lindenberg, 2013; Felin & Foss, 2005; Foss, 2011; Lindenberg & Foss, 2011; Lippman & Rumelt, 2003; Minbaeva, Foss & Snell, 2009). Individual employees are the integral parts of organizations and there is no organization without individuals. There is nothing quite as elementary; yet this elementary truth seems to have been lost in the increasing focus on structure, routines, capabilities, culture, institutions and various other collective conceptualizations in much of recent strategic organization research (Felin & Foss, 2005). Teece, Pisano and Shuen, (1997) described that it is crucial to understand the role of the individuals from the aspect of routines and capabilities. Variation created from the individuals' dimensions is able to influence the routines and capabilities that emerge from the organizational members and the interactions. It is also worth mentioning the role of knowledge management in facilitating the combination of integration and renovation of an organization's knowledge assets (Argote & Ren, 2012).

Furthermore, Salvato, Siascia and Alberti (2009) have proposed a conceptualization of corporate entrepreneurship as knowledge-based organizational capability due to identify the micro-foundation of a firm's corporate entrepreneurship capability for opportunity recognition. This literature provides a model that combines the individual-level role of entrepreneurial managers with firm-level efforts due to strengthen entrepreneurial processes over time.

2.7.2 Knowledge-Based View (KBV)

The importance of knowledge as a driving force of economic growth has led to the development of Knowledge-Based View (KBV) of the firm. It has been considered as an outgrowth of the resource-based theory because knowledge is perceived as the strategically most important resource (Grant, 1996; 1997). The theory posits that the most fundamental role of a firm is the integration of specialized knowledge that resides within individual organizational members which forms the basis of organizational capabilities. Thus competitive success is subject to the ability of the firm to integrate specialized knowledge assets that can create core competences (Pemberton & Stonehouse, 2000).

To create value, a firm has to possess knowledge with certain characteristics such as transferability, capacity of aggregation, appropriateness, specialization in knowledge acquisition, and knowledge requirements of production and processes (Grant, 1996). These resources are usually difficult to emulate as they reside within specialized individuals. Heterogenous knowledge resources and capabilities these individuals generate for the firm are the primary sources of competitive advantage. Grant (1996) argued that the central assumption for the knowledge based view is that the critical input of a firm in production and primary sources of value is knowledge. The firm‘s absorptive capability indicates its ability to identify, assimilate, and exploit knowledge from the environment (Cohen & Levinthal, 1990). The possession of stocks of organizational knowledge with value stands a good chance of generating high performance (Ranft & Lord, 2002). Therefore, Knowledge-based view implies that learning is central to acquiring the new knowledge and capabilities required.

2.7.3 Expectancy Theory of Motivation

Motivation theories have always been associated with performance of individuals because performance is defined as a role of motivation, ability, role perceptions and resources. Motivation theories provide details about the quantity of efforts and the route of effort showed by individuals in organizations. The theories also detail out factors which affect goal-directed behavior and therefore influence the initiatives to develop commitment with the situation on work and motivated to reach high levels of performance. The expectancy theory of motivation is used in this study. This theory is based on a cognitive process theory of motivation on the idea that there are relationships between the effort people put worth at work, the performance they achieve from that effort and the rewards they receive from their effort and performance. In other words, people will be motivated if they believe that strong effort will lead to good performance and good performance will be led by desired rewards (Lunenberg, 2011).

Pioneered by Vroom (1964) the Expectancy Theory of Motivation was later developed by Porter and Lawler (1968), who proposed that high individual performance depends on high motivation plus possession of the necessary skills and abilities, and an appropriate role and understanding of that role. This theory is grounded on four assumptions (Lunnenberg, 2011);

- People join organizations with expectations about their needs, motivations and past experiences. These influence how individuals react to the organization,
- An individual's behavior is a result of conscious choice. Therefore, people are free to choose those behaviors as suggested by their own expectancy calculation,
- People want different things from the organization (e.g., good salary, job security, advancement and challenge), and
- People will choose among alternatives so as to optimize outcomes for them personally".

The Expectancy Theory of Motivation is also viewed as a behavioral choice model. It is a justification of why an individual chooses one behavioral over others. Although it describes the behavioral direction process, it does not enlighten what motivates individuals only on relatively how employee makes decisions to attain their target. According to Vroom (1964), the theory consists of three main components; expectancy, instrumentality, and valence. A person is motivated to the degree that he or she believes that effort will lead to acceptable performance (expectancy), performance will be rewarded (instrumentality) and the value of the rewards is highly positive (valence) (Vroom, 1964).

Expectancy can be described as a person's estimation of the probability that job-related attempt will have consequence in a specified level of performance. Expectancy is based on the probability and range value from 0 to 1. If any employee sees no possibility that effort will lead to the preferred performance level, the expectancy level is 0.

Instrumentality on the other hand is an individual‘s estimate of the probability that a given level of achieved task performance will lead to various outcomes. The instrumentality ranges from 0 to 1. For example if an employee sees that a good performance rating will always result in a salary increase, the instrumentality has a value of 1. If there is no perceived relationship between a good performance rating and a salary increase, then the instrumentality is 0. Valence can be described as the strength of an employee‘s preference for a particular reward. Salary increases, promotion, peer acceptance, recognition by supervisors, or any other reward might have more or less value to individual employees. Valences can be either positive or negative. For example, if an employee has a strong preference for attaining a reward, valence is positive. The total range is from -1 to +1 and if an employee is indifferent to a reward, valence would go to 0" (Lunenberg, 2011).

Expectancy has also been defined as the subjective probability (due to individuals‘ differences in their estimations of the association between behavior and outcomes) for the individual‘s expectation that behavior would lead to a particular outcome (Vroom, 1964) and as individual‘s expectation that his performance will be followed by either success or failure (Atkinson, 1957). Expectancy is linked to the individual effort and it articulates the success chances that depend on one‘s abilities due to reach performance. Individual will be more willing to engage in his job or duty if he believes that his effort will help him reach performance. Petri (1991) mentioned that expectancy is important since it assumes that behavior depends on a self-estimation of being able to achieve the valued goals. A person with self-confident will have greater expectancies than one who does not believe in his/hers own abilities; is not well prepared for work or has encountered failure in accomplishing a certain job. Additionally, a person who sees no related between effort and performance will have zero expectancy (Gordon, Mondy, Sharplin & Premeaux, 1990). Hence, expectancy might differ between 0 and 1, from no chance at all to absolute certainty (Buchanan & Huczynski, 1985).

Eraly (2009), mentioned that expectancy could be influenced by several factors such as self-esteem meanwhile Gaignard (2003) mentioned that others‘ esteem regarding one person‘s abilities, colleagues/superior support, competencies and abilities as a result of work experience, clarity of goals regarding performance, resources availability (an organization/institution could influence the expectancy through the lack of resources needed by the employee for doing his job).

2.8 Hypotheses Development

This section discusses the hypotheses development based on the past relevant literature. The hypotheses discussed are in line with the research questions and research objectives outlined in the earlier chapter. The hypotheses to be developed are on the direct relationships between knowledgement, corporate entrepreneurship, and job performance, the mediating role of public service motivation, and the moderating role of organizational commitment.

2.8.1 Knowledge Management and Job Performance

Private and public organizations perceived benefits of knowledge management (KM) via the improvement of quality, efficiency and effectiveness, learning of management and minimization of products and services operational cost (McAdam & O‗Dell, 2000). However, responses from the public sector on the KM are more significant value, reflecting the current drive for efficiency in all areas of the public sector and recognition that knowledge can make an important contribution to this sector. A survey conducted by Al-Athari and Zairi (2001) found that workforce and organization knowledge were the main source for KM implementation. Their study also recognized that shifting employees' behavior to disseminate knowledge was the complex issue in managing knowledge in the organization.

Past studies have established the link between knowledgement and performance. Gold, Malhotra, and Segars (2001) found that sound application of knowledgement managments results in higher firm performance, while Sarin and McDermott (2003) indicated that knowledge has a good association with innovativess and speed to market of new products, which ultimately lead to better performance. Studies by Egbu, Hari and Renukappa (2005) saw that small firms benefited from implementing knowledge management for sustainable competitiveness, Marques, Simon, and Magrys (2007) found the importance of knowledge management as a sutainable competitive advantage in biotechnology and telecommunication industries, Wang, Klein and Jiang (2007) found support for a knowledge management dynamic capability link to performance of manufacturing firms in Taiwan, and Janepuengporn and Ussahawanitchakit (2008) indicated a significant and positive association between knowledge management capabilities and performance of electronic companies in Thailand.

Zack, McKeen and Singh (2009) examined and found positive relationship between knowledge management practices and financial performance, while other researchers such as Wang, Hult, Ketchen and Ahmed (2009), Michael (2010), Hou and Chien (2010) also found significant and positive relationship between knowledge management and firm performance. Davood and Morteza (2012), Abiola (2013), and Lin (2014) investigated knowledge management and performance of SMEs, and found a significant and positive relationship, Wang, Lee, Wu, Chang, and Wei (2012) found the influence of knowledgement management on marketing performance of the auto industry, and Slavkovic and Babic (2013)‘s study on manufacturing firms revealed significant and positive relationship between knowledge management and organizational performance. Similar studies by Daud and Yusoff (2010), Ngah and Ibrahim (2010), and Tan (2011) in the Malaysian context found that knowledge management significantly influenced positive performance of the SMEs.

Studies were also conducted in the public sector organizations. Liebowitz and Chen (2003), for example discovered that a public sector organization can moderately enhanced knowledge management in the surrounding and communication stream, but not in terms of facilitation and measurement. They also found that knowledge sharing in this sector possesses some unique challenges. Firstly, it engages creating ―a motive and reward system" to encourage knowledge sharing, and secondly, the government agencies are naturally hierarchical and bureaucratic organizations whereby this makes the distribution process about knowledge becoming more complex. Based on the theoretical foundation of previous scholars, Girard and McIntyre (2010) successful developed a model using knowledge management in a public sector organization. They demonstrated the significance of KM modeling in a science-based (Inukshuk KM model) initiative in the Canadian public service. The model consisted of five elements namely; technology, leadership, culture, measurement and process. They later concluded that KM would be the way for leaders of the future to overcome the many challenges confronting their organizations. The greatest outcome for their knowledge investment would be for these leaders to understand and apply the enablers of knowledge management.

Meanwhile Skyrme (2003) suggested that knowledge management can play an important role in increasing efficiency in decision making and public service delivery, Du, Ai and Ren (2007) proved that knowledge sharing is correlated with performance and various knowledge sharing dimensions affect performance differently, while Jones (2001) revealed that many researchers admitted that there were many concepts that support the association between knowledge sharing and performance though empirical research was limited. In a study by Syed Ikhsan and Rowland (2004), they discovered that the most complicated knowledge management issue in the public sector organization in Malaysia was changing workers‘ behavior. Other issues were problems in maintaining data, the requirement to build up the ―know-how” and ―know-what” paths of the information and knowledge‘s gathering, providing structured training for all workforces and building up a value-sharing norm which would be able to promote knowledge sharing. They suggested that public sector organizations should focus more on managing knowledge in order to be able to respond to customer requirements, increased service quality and better decision making.

Chong, Salleh, Syed Ahmad and Syed Ikhsan (2011) in their study about knowledge management implementation in a large public sector accounting organization revealed that there were positive relationships between KM and knowledge sharing process on organizational performance. However, significant negative association was found between ICT know-how and skills, and organizational performance. This may due to the fact the accountants perceived themselves as professionals in their field of expertise, and therefore their exposure to ICT had limited them in performing their jobs. They later called for a clear and well-planned knowledge management policy and strategy from the Accountant General's Office. Besides, top management should also provide support and commitment so that KM programs could be implemented successfully in the accounting bodies.

Another study by Sandhu, Jain and Ahmad (2011) among the public sector employees revealed that knowledge management was viewed in a positive way and that knowledge was considered as a root of competitive advantage. However, self-serving biases among employees also appeared when it came across about their readiness on sharing the knowledge compared with their colleagues' willingness to share knowledge. Main individual hurdles were recognized as shortage of time, low communication and shortage of interpersonal skills. Furthermore, the vital organizational barriers were deficient of information technology systems and be deficient in term of rewards and recognition. Other studies on knowledge management in public sector that received attention in Malaysian contexts were Abu Bakar, Yusof and Virgiyanti, (2015); Ahmad, Shahrom and Abdullah (2006); Mohayidin, Azirawani, Kamaruddin and Margono, (2007); Salleh, Chong, Ahmad & Syed Ikhsan (2012); Supar, Ibrahim, Mohamed, Yahya and Abdul (2005); Syed-Ikhsan and Rowland (2004); Chong, Salleh, Ahmad & Syed Ikhsan, (2011) and Sidiqque (2008). Nonetheless, there is yet a study on knowledge management and job performance in the context of local government in Malaysia. Therefore the following hypothesis is posited:

H1: There is significant relationship between knowledge management and job performance.

2.8.2 Corporate Entrepreneurship and Job Performance

The concept of corporate entrepreneurship (CE) appears to be straight forward however past research suggests that corporate entrepreneurship can be in various forms (Sharma & Chrisman, 1999). It is sometimes explained and identified as an activity taking in several forms such as administrative, opportunistic, imitative, acquisitive, and incubative (Schollhammer, 1982; Kanter, 1983; Pinchot, 1985). According to Vesper (1984) CE can be any of the three forms whether individually or collectively, that is; new strategic direction, initiative from below, or autonomous business creation. The concept of corporate entrepreneurship adopted here is the individual behavior which reflects its orientation towards entrepreneurship.

Much attention has also been given to the relationship between corporate entrepreneurship (CE) and performance. Most of the researchers have argued that CE could bolster the firm‘s overall performance (Covin & Slevin, 1991; Zahra, 1993; Lumpkin & Dess, 2001; Wiklund & Shepherd, 2005; Mahmood & Wahid, 2012; Bakar & Mahmood, 2014). CE also can result in products and markets diversification as well as being a measurement to produce impressive financial results (Kuratko, Ireland & Hornsby, 2001). Covin and Slevin (1991) considered CE as a predictor of growth of small firms while Pinchot (1985) recognized CE as competitive advantage and is part of a successful organization. Corporate entrepreneurship is also the main component for the organization‘s success (Antoncic, 2007). It helps to improve company‘s performance through creating new knowledge or revised the existing ones (Dess, Ireland, Zahra, Floyd, Janney & Lane, 2003) as well as improves innovations in term of product and technique‘s processes; for domestic and international business (Chen, Zhu & Anquan, 2005).

Zahra, Ireland and Hitt (2000) tested the association on innovativeness and venturing of corporate entrepreneurship among 231 U.S medium size companies. From the analyses, they found innovativeness was positively significant with profitability, growth and shareholders‘ wealth. Meanwhile, Antoncic and Hisrich (2001) examined the connection between corporate entrepreneurship and organizational performance among 51 U.S and 141 Slovenia companies by applying SEM method. Findings proved that a significant relationship among corporate entrepreneurship and growth in U.S firms has emerged but no significant association was found between corporate entrepreneurship and between profitability. Antoncic and Hisrich (2004) further found that corporate entrepreneurship was significantly related with organizational performance in terms of growth, profitability and new wealth, while Antoncic and Scarlat (2005) discovered that there were only slightly differences in corporate entrepreneurship and alliance item means between Slovenia and Romania. They later suggested that innovation in products and services should be considered critical for performance of firms and economic growth.

Luo, Zhou and Liu (2005) studied on firms in China and revealed that all the three dimensions of corporate entrepreneurshi; innovative, risk-taking and proactive, were positively related to business performance. Wiklund and Shepherd (2005) also applied the three dimensions developed by Covin and Slevin (1991); innovativeness, risk taking and proactiveness in their research between knowledge-based resources, corporate entrepreneurship and the performance of small and medium enterprises. The findings indicated that knowledge-based resources were in relationship to firm performance and further enhanced the relationship with corporate entrepreneurship. Kropp, Lindsay, and Shoham (2008) found an association between innovativeness component and performance while Swierczek and Ha (2003) revealed an association between the proactiveness and innovativeness dimensions and performance. However, Anderson (2010) who examined the CE and performance relationship among 172 Swedish SMEs in the manufacturing sector found that no relationship emerged between the proactiveness component of CE and growth in sales and performance.

Richard and Barnett (2002) discovered that innovativeness positively moderated the relationship between radical and gender while risk taking negatively moderated the same variables. In terms of performance, Lumpkin and Dess (2005) linked corporate entrepreneurship with both financial and non-financial measurements. Financial measurements of performance are classified as growth, market share and profitability while non-financial measurements suggested are job satisfaction and affective commitment of the organizational members. Even though financial measurement is important, non-financial measurement may also be used as an association with entrepreneurial outcomes.

Ahmad, Mohd Nasrudin and Mohamed Zainal (2012) investigated on the need to ingrain entrepreneurial spirit among Malaysian workforce and identified that the availability of management support, work discretion, resource and reinforcement and time availability have been the major influences on intrapreneurship. They also found that intrapreneurial behavior had a positive association with job performance. They then suggested that the manufacturing sector must stimulate intrapreneurship behaviors among the workers in order to enhance creativity, innovative and attain organizational competitiveness.

There were other studies that mainly focused on organizational and business corporate entrepreneurship and firm performance. McGrath and MacMillan (2000) discovered that entrepreneurial behaviors in global companies led to breakthrough products and services, development of new technologies and increased performance, while corporate entrepreneurship was found related positively to the business performance (Barret & Weinstein, 1998; Jogaratnam, Ching & Tse, 2006). Several studies have also examined the role of corporate entrepreneurship in the performance of firms by applying different contingency and configuration approaches and still found positive results (Chow, 2006; Covin & Wales, 2012; Hughes & Morgan, 2007; Jantunen, Puumalainen, Saarenketo, &

Kylaeiko 2005; Kzem & van de Heijden, 2006; Keh, Nguen & Ng, 2007; Krauss, Frese, Friedrich, & Unger, 2005; Madsen, 2007; Naldi, Nordqvist, Sjöberg & Wiklund, 2007; Poon, Ainuddin & Junit, 2006; Walter, Auer & Ritter, 2006 & Wiklund & Shepherd, 2003; 2005). Yet most studies which have conducted research on the link between corporate entrepreneurship and organization performance were focused on corporate or business sector (Covin & Slevin, 1991; Zahra, 1993; Hornsby, Naffziger, Kuratko & Montagno, 1993; Lumpkin & Dess, 1996; Adonisi, 2003; Antoncic & Hisrich, 2004; Heinonen & Korvela, 2003; Kearney, Hisrich & Roche, 2008; Cangahuala & Chen, 2010).

Studies have also revealed that entrepreneurial activities within the public sector could improve the performance of public services (Kuratko, 2004; Thornberry, 2006). Nevertheless, existing research regarding the impact of corporate entrepreneurship (entrepreneurship activity within the organization) on performance in the context of public sector organizations, either in local or international scopes, is still scarce. There were studies conducted in Indonesian in the context of civil government organization, but only few were on corporate entrepreneurship concept to improve the employees' performance (Ghina, 2012; Suryanita, 2006; Sofyan, 2008; Mariam, 2009; Mariana, unpublished). For example Ghina (2012) found that individual's entrepreneurial orientation is supportive to the success in the public service.

It is also worth noting most of the corporate entrepreneurship studies which focused mainly on the private sector were conducted in developed countries especially the US and some European countries. Some authors have argued for the need for corporate entrepreneurship studies in other countries with socio-cultural differences (Sharma & Dev, 2012; Shehu, 2014; Wales et al, 2011) while others suggested in different sectors and context (Bakar & Mahmood, 2013; Ndubisi & Iftihar, 2012; Mahmood & Wahid, 2012; Musa, Abd Ghani & Ahmad, 2011). Hence, the needs to extend further the effect of corporate entrepreneurship on work performance of employees in the context of local governments in Malaysia. Therefore the hypothesis is postulated:

H2: There is significant relationship between corporate entrepreneurship and job performance.

2.8.3 Public Service Motivation as a Mediator

Past studies have examined achievement motivation as a predictor of performance (Collins, Hanges, & Locke, 2004; Stewart & Roth, 2007; Ryan, Tipu, & Zaffane, 2011; Deshpande, Grinstein, Kim, & Ofek, 2013). While most of these studies were focused on the corporate sector, there were also studies that highlighted the importance of motivation on the performance in the public sector. For example, Bonsu and Kusi (2014) found that local government employees in Ghana could be motivated if they were given incentives that could help booster their job performance such as high salary and good working conditions. They also found that most of the public managers left the public services due to the poor remuneration and benefits offers and hey would go for a further mile to search of better-working conditions and good remuneration. Bright (2007) investigated the association between public service motivation (PSM) and job performance on three public organizations in the states of Indiana, Kentucky and Oregon at the three levels of government. The outcome from this study indicated a significant association among PSM and self-reported performance.

A study by Kim (2005) also showed significant relationship on public service motivation on individual-level aspects and performance in government organizations. Thus higher individual performance would lead to the higher organizational performance, and that individual performance would be a value-added variable to organizational performance (Perry & Wise, 1990; Brewer & Selden 1998; Brewer, Selden & Facer, 2000). Based on the study by Xiaohua (2008), PSM was found to be in direct significant relationship with individual performance. The result also showed an indirect outcome on job performance through job satisfaction. From these findings, it showed that individual job performance might be better by increasing public sector workers' job satisfaction. PSM also proved as significant positive association on the government workforce's job performance. The higher levels of PSM accounted for higher levels of job performance on each employee. Jangkingthong and Rurkkhum (2012) proposed a conceptual framework on factors affecting job performance using SEM and found the direct effect of PSM on task and contextual performances.

Studies were also conducted on the public service motivation in both public and private sectors in Indonesia (Yanti, 2012), and among public sector employees in Malaysia where lack of motivation was found to have had caused a growing public complaints of service delivery (Mahazril_Aini, Zuraini, Hafizah, Aminuddin, Zakaria, Noordin & Mohamed, 2012). Yanti (2012) examined the public service motivation among public and private health sector workforces in Jambi, Indonesia. The results supported the assumption that public sector employees had higher levels of PSM than those of the private sector. Satisfaction with pay, work and promotion were indicated to have statistically significant positive relationships with public service motivation. Satisfaction with supervision was positively but insignificantly related to public service motivation, while satisfaction with co-workers was negatively but insignificantly related to public service motivation. Meanwhile, Salleh, Dzulkifli, Abdullah and Mat Yaakob (2011) investigated the effect of motivation on job performance of employees of state governments in the East Coast of Malaysia, and found that achievement motivation of employees and power motivation were not significantly related to job performance. Only affiliation motivation was significantly and related to job performance. These findings indicated that employees with a higher level of affiliation motivation and build with stronger tendency to develop interpersonal associations with others are more likely to perform in their job performance.

Motivation was also tested as a mediator variable. According to Baron and Kenny (1986) if an independent variable relates directly to mediator, and the mediator relates directly to dependent variable, then there is a possibility of mediation between the independent variable and dependent which signifies a direct and indirect relationship between the independent and dependent variables. Past studies had examined the mediating role of motivation on workplace characteristics and outcomes relationship (Jayaweera, 2015, Parker, Baltes, Young, Huff, Altmann, Lacost & Roberts, 2003; Geister, Konradt & Hertel, 2006), the mediating role of intrinsic motivation on the association between developmental feedback and employee job performance (Liao, Liao & Zhang, 2014), and between personality traits, performance appraisal satisfaction and job performance (Kuvaas, 2006; Barrick, Stewart & Piotrowski, 2002).mediating or moderating role of factors such as personality traits, performance appraisal satisfaction and job performance (Kuvaas, 2006; Barrick, Stewart & Piotrowski, 2002; Carr, Schmidt, Ford & DeShon, 2003; Ostroff, Atwater & Feinberg, 2003; Ko & Han, 2013). These scholars have also suggested the inclusion of a mediating variable in a relationship between independent and dependent variables in the public sector. The mediating role of public service motivation in the local government needs further examination. Thus the following hypotheses:

H3: Public service motivation mediates the relationship between knowledge management and job performance.

H4: Public service motivation mediates the relationship between corporate entrepreneurship and job performance.

2.8.4 Organizational Commitment as a Moderator

Past studies have also linked organizational commitment with employee work performance. Cesario and Chambel (2017) for example revealed the existence of a positive relationship between organizational commitment and employee performance but commitment did not present significant predictor strength, while Susanty and Miradipta (2013) and Alderton (2016) and Steyrer, Schiffinger and Lang (2008) confirmed the positive and significant effect of organizational commitment on employee performance. Yeh and Hong (2012) in their study among employees of a Taiwanese also found that organizational commitment has a constructive outcome on job performance.

However, Allen and Meyer (2007) found that only affective commitment was significantly associated to job performance but not normative or continuance commitments. Similarly, Tolentino, (2013) also found that out of the three dimensions of organizational commitment, only affective commitment was found to be significantly associated to the job performance.

However, Toban and Sjahruddin (2016) only found the indirect relationship where organizational commitment acted as a complete mediator in explaining the effect of transformational leadership and employee performance. Many studies have also found organizational commitment played a mediating role in the relationships between job performance with other variables such as leadership styles, (Yeh & Hong, 2012; Wang, Liao, Xia & Chang, 2010; Rageb, Abd-El-Salam, El-Samadicy & Farid, 2013; work climate (Che Rose, Kumar & Pak 2009; Suliman, 2002), job security (Davy, Kinichi & Scheck, 1997) as well as such as between goal orientation and job satisfaction, (Lee, Tan & Javalgi, 2010); (Yucel, 2012), leadership behavior and job satisfaction (Darwish, 2000), goal orientation and job satisfaction (Lee, Tan & Javalgi, 2010), leader-member exchange (Wang, Liao, Xia, & Chang, 2010), stress and performance association (Jamal, 2011), and distribute justice-benevolence (Iverson, McLeod & Erwin, 1996). On the contrary, Che Rose, Kumar and Pak (2005) in their study among Malaysian public administrators found that organizational commitment does not fully mediate the association among work climate and performance.

There were also studies on moderating role of organizational commitment on the relationships between independent and dependent variables. Phipps, Prieto and Ndinguri

(2013) proposed that organizational commitment acted as a moderator variable in their conceptual paper. They found evidence suggesting that employee involvement and organizational commitment are the cultural constructs that both have effects on human resource management practices, whereby produce effect on productivity and performance. Ilyas (2013) examined the relationship between person job fit, job satisfaction, job commitment and intention to quit amongst employees of various organizations in Pakistan. Results suggested that organizational commitment moderates the relationship between person job fit and intention to quit. Nevertheless not much of these studies focused the moderating effect of organizational commitment on those relationships in the public sector. Additional study is therefore needed to examine the moderating role of organizational commitment in the context of employee job performance in the local governments of the public sector organizations. Thus the following hypotheses are formulated:

H5: Organizational commitment moderates the relationship between knowledge management and job performance.

H6: Organizational commitment moderates the relationship between corporate entrepreneurship and job performance.

2.9 Research Framework

The research framework for this study was developed based on the literature review and the identification of the theoretical gaps (See Figure 2.1 below). The framework shows the independent variables; knowledge management and corporate entrepreneurship, a mediating variable; public service motivation, a moderating variable; organizational commitment, and a dependent variable; job performance. This framework is to examine the direct relationships between the two independent variables to the dependent variable, and the indirect relationships of the mediating and moderating variables. These relationships were based on the research objectives and hypotheses developed earlier. Figure 2.1 portrays such relationships.

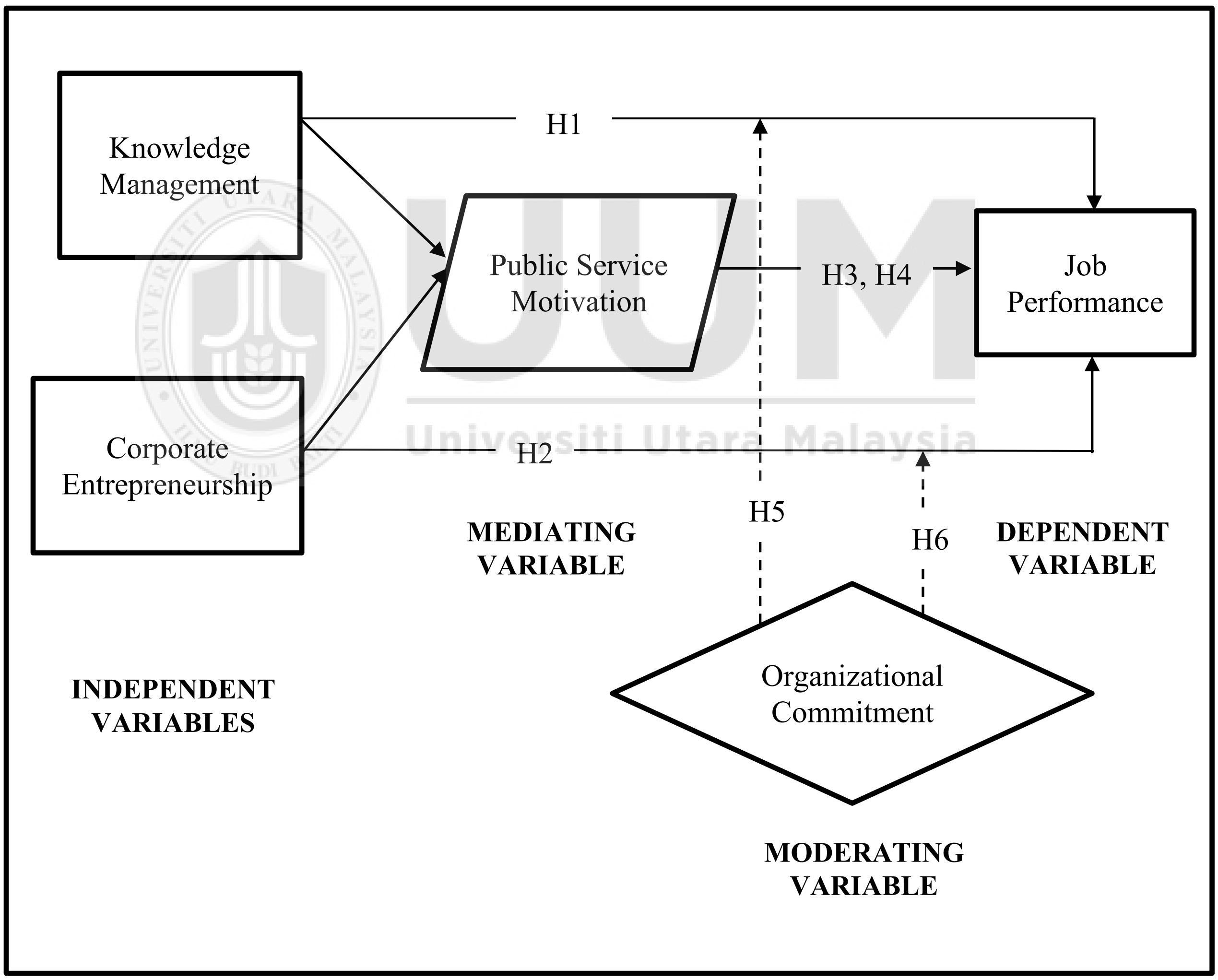

Figure 2.1
Research Framework

The research framework in this study is underpinned by three theories namely Resource-Based Theory (RBT), Knowledge-Based Theory (KBT), and Expectancy Theory (ET). According to RBT, the competitive advantages for the organization are generated from the unique resources that the organization owns (Barney, 2001; Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). The theory further explains why organizations are different and how organizations achieve and sustain competitive advantage by deploying their resources. In this study knowledge management and corporate entrepreneurship resources or capabilities as well as competitive strategies which an organization can use to gain a sustainable competitive edge and achieve greater performance in a highly dynamic and challenging environment. Similarly, the KBT posits that the most fundamental role of an organization is the integration of specialized knowledge that resides within individual organizational members which forms the basis of organizational capabilities. Thus competitive success is subject to the ability of the organization to integrate specialized knowledge assets that can create core competences (Pemberton & Stonehouse, 2000).

Expectancy theory has some significant consequences of motivating employees, whereby it described the person‘s estimate of the probability that job-related effort will result in a given level of performance (Din, 2012). This theory distinguishes procedures of enhancing employee motivation by modifying the individual‘s effort to performance expectancy, performance to reward expectancy, and reward valences (McShane & Von Glinow, 2000). Indeed, a study from Suciu, Mortan and Lazar (2013) proven that motivation process was influenced by the performance evaluation especially from the aspect of civil servants _work motivation.

2.10 Summary of the Chapter

This chapter presented the extant literature on the concepts of knowledge management, corporate entrepreneurship, public service motivation, organizational commitment, and job performance. This presentation was followed by a series of research hypotheses formulated based on the reviewed literature. A total of six hypotheses were developed. Finally a research framework that depicted the relationships among the variables of study was proposed together with the Resource-Based Theory (RBT), Knowledge-Based Theory (KBT) and Expectancy Theory (ET) that underpinned it.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains in detail the methodology employed in the study on the direct effects of the independent variables; knowledge management, and corporate entrepreneurship, mediation effect of public service motivation, and the moderation effect of organizational commitment on the Malaysian local government managers‘ job performance. The chapter is organized according to the following sections: research design, population, sampling method, instrumentation, data collection process, validity and reliability of the measurements and results of pilot testing prior to real study on the target population.

3.2 Research Design

According to Creswell (2009, p. 3), ―Research designs are plans and procedures for research that span the decision from abroad assumptions to detailed methods of data collection and analysis”. The research design is a blueprint for the collection, measurement, and analysis of data, based on the research questions of the study (Sekaran & Bougie, 2013). Commonly, there are three types of research design for researchers to conduct their research; namely quantitative, qualitative or mixed methods (triangulation). Quantitative research is applied to describe for testing objectives theories by examining the relationship among variables. These variables can be measured on instruments so that the numbered data are able to be analyzed using statistical procedures. On the other hand, qualitative research is applicable for exploring and understanding the meaning individuals or groups ascribe to a social or human problem, while mixed methods research is an approach involves the combination or associating both quantitative and qualitative forms in a study (Creswell, 2009).

Quantitative approach was the research design adopted in this study. Quantitative approach was considered the most appropriate because it is used to test research obejctives and hypotheses that have already been developed (Creswell, 2009). In addition, it allows for the collection of large volumes of data to test the relationships between variables. The descriptive research was also utilized because the purpose of this study is to describe the nature of relationships between knowledge management, corporate entrepreneurship, public service motivation, organizational commitment, and job performance among managers of the local governments in Malaysia. This study was cross-sectional study because it involves the gathering of data at one point of time to achieve the research objectives. Cross-sectional study is more economical, and it does not take much time compared to longitudinal study which is carried out repeatedly over an extended period of time (Cooper & Schindler, 2014).

Survey questionnaire method was employed to collect data through self-adminsitered questionnaires. According to Saunders, Lewis and Thornhill (2014) a survey is designed to collect data from a sample with a view to generating the results to a population. It is also a research strategy that involves the structured collection of data from a sizeable population besides providing the benefits of being feasible to large samples, flexibility of responding to many questions on a topic, and reliable (Babbie, 2010). Questionnaire was also used because it is considered as an efficient data collection mechanism when the researcher knows exactly what is required and how to measure the variables of interest (Sekaran, 2003). Sekaran (2003) referred questionnaire –as a pre-formulated written set of questions to which respondents record their answers, usually within rather closely defined alternatives" (p. 236).

3.3 Population and Sample

A population is a set of cases or group members that the researcher wished to investigate (Saunders et al, 2014). It is also defined as the entire aggregate of respondents that meet the designated set of criteria (Singleton, Straits, & Straits, 2010). This study was conducted in the context of local government authorities in Peninsular Malaysia, Sabah and Sarawak. The local government authorities in Peninsular Malaysia consisted of City Council or City Hall, Municipal Council and District Council, in Sabah the District Council, Town Board and Municipal Council, and the local authorities in Sarawak comprised of City Administration, Municipal Council and District Council.

The population for this study was the Management and Professional Groups (MPG) of Local Government authorities, and the unit of analysis was individual. According to Abdul Manaf, (2011) and Ismail and Yusof (2009), MPG refers to the middle management between top management and supporting staff. MGS were chosen because they are responsible for strategic decisions at the operations level, and therefore they are in the best position to describe the various organizational characteristics of their departments. The MPGs are usually involved in policy-making for the human resource management, financial management and social-economic development within their jurisdictions (Abdul Manaf, 2011 & Ismail & Yusof, 2009). This study also focused more on the operational capabilities that are more closely related to the middle-level management rather than top management. It aimed to measure those responsible for the execution of strategy, not the top management who formulated it. Nonaka and Takeuchi (1995) pointed out the significance of middle-level managers because they usually become a team leader due to the knowledge they possess. These middle managers play a key role in the organizational knowledge-creation process, and they are answerable to the top management and supervise supporting staff as well (McAdam & Reid, 2000). Thus, collecting information from the midlle level management of the local government authorities would well support the focus of this study.

Sampling frame consists of a set of elements which the researcher uses to select a sample. The sampling frame of this study comprised of 2531 middle level managers (those with grades ranging from 41 to 54) from the local government authorities in Peninsular Malaysia, Sabah, and Sarawak (See Table 3.1 below).

Table 3.1
Number of Respondents in the Local Government Authorities

No.	**Number of Local Government Authority**	**Number of Mid Managers (Grades 41-54)**
1.	12 City Hall & City Council	1094
2.	39 Municipal Council	1105
3.	98 District Council	198
	Total	2531

Source: www.kpkt.gov.my

It is not always feasible to study the entire population of study, and therefore, there is a need to take a sample to derive inferences about the population. A sample is defined as a subset of the population, and it is the number of units from the population that the researcher intends to collect information from (Saunders et al, 2014; Sekaran & Bougie, 2013). Based on the population of 2531 from the sampling frame, the appropriate sample size at 5 percent margin of error and 95 percent level of confidence should be 334 (Krejcie & Morgan, 1970). This number is in line with Roscoe‘s (1975) rules of thumb of determining sample size that ―sample sizes larger than 30 and less than 500 are appropriate for most research” (Sekaran, 2003, p. 295-296). However, in any typical mail survey, the researcher should always bear in mind that in order to get a response rate of 100 percent is nearly impossible. In a typical Malaysian study the response rate for mail survey was around 10 to 20 percent (Ramayah, 2013). According to Harbaugh (2002), response rates for traditional mail surveys have continued to decline to a point where the average would be below 20 percent. Past studies on mail survey in the Malaysian state and local governments also reported low response rates (Mucciarone & Neilson, 2011; Ghazali, Rahim, Ali & Abidin, 2014). Therefore, to overcome the possibility of not getting the desired samples and to get as large responses as possible so that non-response error could be reduced (Creswell, 2009), the number of respondents should be four or five times higher than the intended sample (Bartlett, Kotrlik, & Higgins, 2001; Cochran, 1977). Based on this calculation, the number of respondents to be sent with the questionnaires should be 1336.

Once the desired sample size was obtained, the next step is to select the appropriate sampling technique. This study adopted probability random sampling because of the need to generalize the findings to the population. In selecting the respondents to be administered with the questionnaires, a systematic random sampling method was used. Systematic random sampling involves drawing every *n*th element in the population starting with a randomly chosen elemen between 1 and *n* (Sekaran & Bougie, 2013; p. 248). The reason of selecting this technique was due to a large sampling frame, and the listing of the elements is conveniently available in one place. In addition, systematic sampling offers the advantages of ease and quickness in developing the sample. The process of selecting the samples randomly from the sampling frame was conducted by using Microsoft Office Excel 2010. From there, every *K*th element would be selected from the list (Malhotra, 2006); for instance in this study where every k=2, every 2nd name was repeatedly picked up from the list of approximately 2531 names of local government managers in the sampling frame (Malhotra, 2006; Bordens & Abbott, 2002), until a final total of 1336 names were gathered from the list.

3.4 Measures and Instrumentations

This study employed self-administered survey questionnaire to measure independent variables (knowledge management, corporate entrepreneurship), mediating variable (public service motivation), moderating variable (organizational commitment), and the dependent variable (job performance). Self-administered questionnaire is where respondents take the responsibility for both reading and answering the questions whether or not in the presence of the researcher (Zikmund & Babin, 2010). This kind of questionnaire is often used mode of assessment in research because of the practicality and efficiency in getting data from a large number of respondents (Robins, Tracy & Sherman, 2007; Paulhus & Vazire, 2007). It is also the logical way to measure intangible constructs such as asking people to respond to questions about what they are like or how they behave. Thus, self-administered questionnaire is the most prevalent data collection method used in business and management research (Judge, Piccolo & Kosalka, 2009).

The questionnaire comprised of six sections altogether. Section A consisted of eleven (11) items measuring “knowledge management” while Section B consisted of eighteen (18) items relating to “corporate entrepreneurship”. In Section C, there were twenty four (24) items measuring “public service motivation”, and eighteen (18) items measuring “organizational commitment” were in Section D. Section F measured “job performance” with fourteen (14) items. Finally Section G provides general questions pertaining to the background of the respondents such as gender, age, race and marital status, education level, and years of working with the organization. The questions used for all variables were based on interval scale, and employed Likert rating from 1 to 5 to denote the following; Strongly Disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4), and Strongly Agree (5).

All measurements employed in this study were adopted from previous studies (i.e. Lee, Lee & Kang, 2005; Koopmans, Bernaards, Hildebrandt, Schaufeli, de Vet Henrica, & van der Beek, 2011; Koopmans, Bernaards, Hilderbrandt, van Buuren, van der Beek & de Vet, 2013; Koopmans, Bernaards, Hilderbarndt, Buuren, van Beek, van Der & de Vet, 2014; Scott & Bruce, 1994; Gomex-Meija & Balkin, 1989; Bateman & Crant, 1993; Perry, 1996; Meyer & Allen, 1997; Koopmans et al., 2011; Koopmans, 2013). Each of the instrument‘s internal consistency reliability value was based on the results from previous studies. Even though an alpha coefficient of 0.70 or higher is accepted (Bryman & Cramer, 1990), the generally acceptable limit for Cronbach‘s alpha of 0.60 as recommended by Nunnally (1978), Nunnally and Bernstein (1994), Hair et al., (2003) and Sekaran (2004) was considered reliable and adopted for this study.

3.4.1. Knowledge Management (KM)

Knowledge management comprised of five dimensions, which are knowledge creation, knowledge accumulation, knowledge sharing, knowledge utilization and knowledge internalization. However, only two dimensions were applied in this study since it was related to the research content; knowledge creation and knowledge internalization. Both dimensions were also associated with job performance characteristics; task performance and contextual performance. Knowledge management scales in this study were adapted from Lee et al. (2005). Eleven items were used to measure Knowledge Management as a unidimensional construct on a 5-point Likert scale ranging from ‗1‘ ―Strongly Disagree” to ‗5‘ ―Strongly Agree” (See Table 3.2).

Table 3.2
Measurement Scales of Knowledge Management

No	Items
1.	I can learn what is necessary for new tasks
2.	I can refer to do best practices and apply them to my tasks
3.	I can use the Internet to obtain knowledge for the tasks
4.	I often use an electronic bulletin board to analyze tasks.
5.	My predecessor adequately introduced me to my tasks.
6.	I fully understand the core knowledge necessary for my tasks.
7.	I obtain useful information from brainstorming meetings without spending too much time.
8.	I obtain useful suggestion from brainstorming meetings without spending too much time.
9.	I search information for tasks from various knowledge sources administered by the organization.
10.	I understand computer programs needed to perform the tasks and use them well.
11.	I am ready to accept new knowledge and apply it to my tasks when necessary.

Source: Lee et al., (2005)

3.4.2 Corporate Entrepreneurship (CE)

Sharma and Chrisman (1999) used the term ‗corporate entrepreneurship (CE)‘ while other researchers referred CE as intrapreneurial orientation (Stewart, 2009), entrepreneurial orientation (Covin & Slevin 1989; Miller 1983; Morris & Paul 1987), or intrapreneurship (Covin & Slevin 1991; Ireland, et al., 2006a; 2006b; Zahra 1991). Covin and Slevin (1986, 1989, 1991, 1999), developed entrepreneurial orientation (EO) as a unidimensional construct comprisisng innovativeness, proactiveness, and risk taking, while Lumpkin and Dess (1996), conceptualized EO as a multidimensional construct consisting five (5) separate dimensions of autonomy, risk taking, proactiveness, innovativeness and competitive aggressiveness. These dimensions are also independently and collectively defined the domain of CE (Covin & Wales, 2012). However, many scholars have also measured EO as a unidimension construct for innovativeness, risk-taking and proactiveness (George & Marino, 2011; Kresier, Marino, Kuratko & Weaver, 2013; Kreiser, Marino, Dickson, & Weaver 2010; Li, Zhao, Tan & Liu, 2008; Nik Ismail, 2012; Stewart, 2009; Wiklund & Shepherd, 2005).

Corporate entrepreneurship in this study was measured based on the adopted scale from a previous study by Stewart (2009). The measurement of CE was based on a unidimensional construct with eighteen (18) items. Measures of the three dimensions of corporate entrepreneurship are coherent with previous studies (Covin & Slevin, 1989; Covin & Wales, 2012; Knight, 2000; George & Marino, 2011; Kresier, Marino, Kuratko, & Weaver, 2013; Kreiser, Marino, Dickson, & Weaver, 2010; Li, Zhao, Tan, & Liu, 2008; Nik Ismail, 2012 & Wiklund & Shepherd, 2005). Each component was measured with six (6) items. The six (6) innovativeness items were based on innovative behavior work from Scott and Bruce (1994), the risk taking items scale were adapted from Gomex-Meija and Balkin (1989), Matsuno, Mentzer and Ozsomer (2002) and the six-item (6) scale for proactiveness was from Bateman and Crant (1993).

CE at individual-level is becoming a widely used tool to measure intrapreneurship or corporate entrepreneurship activities or behaviors within existing organizations (Dess, Lumpkin & McKee, 1999; Stull & Singh, 2005; Covin, Green & Slevin, 2006 & Stewart, 2009). In this study the questions measuring CE at the individual level required the respondents to rate how entrepreneurial they are as compared to their colleagues. The 18 items that were used to measure corporate entrepreneurship are listed in Table 3.3 below.

Table 3.3
Measurement Scales of Corporate Entrepreneurship

No	Items
1.	I search new technologies, processes, techniques, and/ or products ideas.
2.	I generate creative ideas.
3.	I promote and champion new ideas to others.
4.	I investigate and secure fund needed to implement new ideas.
5.	I develop adequate plans and schedules for the implementation of new ideas.
6.	I am innovative.
7.	I am not willing to take risks when choosing a job or organization to work for.
8.	I prefer a low risk/high-security job with a steady salary over a job that offers high risks and high rewards.
9.	I prefer to remain on a job that has problems that I know about rather than take the risks of working at a new job that has unknown problems even if the new job offers greater rewards.
10.	I view risk on a job as a situation to be avoided at all costs.
11.	When it comes to making work-related decisions, I like to ―play it safe”.
12.	I like to implement a plan only if I am very certain that it will work.
13.	Where ever I have been, I have been a powerful force for constructive change.
14.	If I see something I don‘t like, I fix it.
15.	No matter what the odds, if I believe in something I will make it happen.
16.	I love being a champion for my ideas, even against others‘ opposition.
17.	I am always looking for better ways to do things at work.

18. I can spot a good opportunity long before others can.

Source: Stewart (2009)

3.4.3 Public Service Motivation (PSM)

Perry (1996) developed the Public Service Motivation (PSM) scale with four dimensions namely; attraction to policy making, commitment to the public interest, compassion and self-sacrifice. These dimensions were tested by many researchers such as Anderson, Jorgensen, Kjeldsen, Pederson and Vrangbaek (2012) who revealed that Cronbach‘s alpha value were 0.6 for all PSM dimensions except for Compassion dimension due to only two items applied, Kim, Vandenabeele, Andersen, Crerase, Christensen, Koumenta, Leisink, Liu, Palidauskaite, Pedersen, Perry, Taylor, Vivo, and Wright (2010) who reported the reliability coefficient values as between 0.542 to 0.782, Xiaohua (2008) who recorded a high-reliability coefficient of 0.90, and Camilleri and Van Der Heijden (2007) who reported the Cronbach's alpha of 0.59 (attraction to public policy-making), 0.70 (public interest), 0.72 (compassion) and 0.83 (self-sacrifice).

Another study by Kachornkittiya, Trichan and Lerkiatbundit (2012) on PSM among municipal employees in Thailand had achieved the Cronbach‘s alpha values of 0.833 (attraction to public policy making), 0.800 (commitment to the public interest), 0.882 (compassion) and 0.890 (self-sacrifice). Although some scholars insisted that public service motivation is not a government monopoly instrument, it is a helpful construct to explain behavior not only for public sector employees but also for private sector employees (Liu, 2009; Perry, 1997 & Naff & Crum, 1999). Thus Perry‘s (1996) measurement scale was mostly accepted as an excellent measure of public service motivation (Petrovsky, 2009).

A twenty-four (24) items measurement scales developed by Perry (1996) were used to measure Public Service Motivation (PSM) in this study with a 5-point Likert-type scale ranging from ‗1‘ ―Strongly Disagree” to ‗5‘ ―Strongly Agree” in order to measure the items. The items are listed in Table 3.4 below:

Table 3.4
Measurement Scales of Public Service Motivation

No	Items
1.	Politics is not a dirty word.
2.	The ―give and take of public policy-making” appeals to me.
3.	I care very much for politicians.
4.	It is easy for me to get intensely interested in what is going on in my community.
5.	I unselfishly contribute to my community.
6.	I consider public service my civic duty.
7.	Meaningful public service is very important to me.
8.	I would prefer seeing public officials do what is best for the whole community even if it harmed my interests.
9.	It is difficult for me to contain my feelings when I see people in distress.
10.	Most social programs are too vital to do without.
11.	I am often reminded by daily events how dependent we are on one another.
12.	I am often moved by the plight of the underprivileged.
13.	To me, patriotism includes seeing to the welfare of others.
14.	I have a lot of compassion for people in need who are unwilling to take the first steps to help themselves.

15. There are many public programs that I wholeheartedly support.

16. I often think about the welfare of people I do not know personally.

17. Doing good deed is definitely more important to me than doing well financially.

18. Much of what I do is for a cause bigger than myself.

19. Serving other citizens would give me a good feeling even if no one paid me for it.

20. Making a difference in society means more to me than personal achievements.

21. I think people should give back to society more than they get from it.

22. I am prepared to make enormous sacrifices for the good of society.

23. I am one of those rare people who would risk personal loss to help someone else.

24. I believe in putting duty before self.

Source: Perry (1996) & Wright (2008)

3.4.4 Organizational Commitment (OC)

The Organizational Commitment Questionnaire (OCQ) developed by Meyer and Allen (1997) was adapted in this study. The OCQ is an 18 items with 3 scales and six items per dimension. Meyer and Allen (1997) defined it as a three component psychological states; affective commitment, normative commitment, and continuance commitment, According to Schmidt (2007), the instrument has been extensively applied in the social science research and recognized as an outstanding psychometric property in cross-cultural research. Jamal (2011) reported high-reliability coefficient of 0.83 (Malaysia) and 0.79 (Pakistani) for this measurement, while Camilleri and Van Der Heijden (2007) recorded reliability values of 0.82 for affective commitment, 0.69 for continuance commitment, and 0.82 for normative commitment. The measurement scales of organizational commitment with eighteen (18) items are listed in Table 3.5 below:

Table 3.5
Measurement Scales of Organizational Commitment

No	Item
1.	I would be very happy to spend the rest of my career with this organization.
2.	It would be very hard for me to leave my organization right now, even if I wanted to.
3.	I believe I have an obligation to remain with my current employer.
4.	I enjoy discussing my organization with people outside it.
5.	Too much of my life would be disrupted if I decided I wanted to leave my organization right now.
6.	Even if it were to my advantage, I do not feel it would be right to leave my organization now.
7.	I really feel as if this organization‘s problems are my own.
8.	Right now, staying with my organization is a matter of necessity as much as desire.
9.	I would feel guilty if I left my organization now.
10.	I feel like –part of the family" at my organization.
11.	I believe that I have too few options to consider leaving this organization.
12.	One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice (another organization may not match the overall benefits I have here).
13.	This organization deserves my loyalty.
14.	This organization has a great deal of personal meaning for me.
15.	I would not leave my organization right now because I have a sense of obligation to the people in it.
16.	I have a strong sense of belonging to my organization.
17.	If I had not already put so much of myself into this organization, I might consider working elsewhere.
18.	I owe a great deal to my organization.

Source: Meyer & Allen (1997).

3.4.5 Job Performance (JP)

Individual Work Performance Questionnaire (IPWQ) developed by Koopmans, Bernaards, Hildebrandt, Schaufeli, De Vet and Van der Beek, (2011); Koopmans, Bernaards, Hilderbrandt, van Buuren, van der Beek, and de Vet, (2013), and Koopmans, Bernaards, Hilderbarndt, Buuren, van Beek, van Der and de Vet, (2014a), Koopmans, Bernaards, Hildebrandt, de Vet, and van der Beek, (2014b) was adapted for this study. The measurement contains three dimensions; task performance, contextual performance and counterproductive work behavior. The researchers revealed that a generic and short questionnaire can be applied to measure individual work performance as the scales demonstrated satisfied key measurement requirements for the Rasch model, such as local independence and unidimensionality (Koopmans et al., 2013). For the purpose of this study, only two dimensions were used to measure job performance as justifications from most scholars indicated job performance as consisted of two dimensions; task and contextual performance (Borman & Motowidlo, 1993; Campbell, 1990; Motowidlo et al., 1997; MacKenzie et al., 1991; Organ et al., 2006).

Most scholars asserted that job performance is a multidimensional constructs (Campbell, 1990; Borman & Motowidlo, 1993; Campbell, Gasser & Oswald, 1996; Motowidlo et al., 1997). However, for a decision making in organizations a unidimensional or known as composite criteria is ideal (Schmidt & Kaplan, 1971; Johnson & Meade, 2010). The employment of unidimensional on job performance constructs was also supported by Bakar, (2013). Thus, this study applied a unidimensional construct on the job performance measurement since it is also recommended by Schmidt and Kaplan (1971) on the applicability of constructs for the research involved with an individual decision making in organizations. The fourteen (14) items that measure the construct of job performance are listed in Table 3.6 below:

Table 3.6
Measurement Scales of Job Performance

No	**Items**
1	I managed to plan my work so that it was done on time.
2	I kept in mind the results that I had to achieve in my work.
3	I was able to separate main issues from side issues at work.
4	I was able to perform my work well with minimal time and effort.
5	My planning was optimal.
6	Collaboration with others was very productive.
7	I started new tasks myself, when my old ones were finished.
8	I took on challenging work tasks, when available.
9	I worked at keeping my job knowledge up-to-date.
10	I worked at keeping my job skills up-to-date.
11	I came up with creative solutions to new problems.
12	I took on extra responsibilities.
13	I continuously sought for new challenges in my work.
14	I participated actively in work consultations or meetings.

Source: Koopmans et al., (2011, 2013 & 2014a).

Table 3.7 below represents the summary of all five (5) major constructs, and eighty-five (85) items adopted and employed in this study. The table also represents the number of response categories that were used in the study. Interval measurement scale was applied, and five (5) points Likert-type scale was considered the most suitable for the study 9Malhotra & Peterson, 2006). The reason of using 5-point scale is based on Likert (1932) who did not consider the number of choices to be an important issue. He stated, ―If five alternatives are used, it is necessary to assign values from one to five with the three assigned to undecided position". It is understood that the choice of numbers are based on personal taste or past convention. Another point to consider is the advantages and disadvantages of using scale format in terms of the interface between the respondent and the interviewer in a telephone survey. This can be illustrated by the application of five-point scale as it is relatively simple for the interviewer to read out the complete list of scale descriptor (for example; 1 equals strongly disagree, 2 equals disagree….). However, this clarification is lengthier for the seven-point format and quite impractical for a 10-point format (Dawes, 2008). It is also reported that using ―five point scale' is likely to produce slightly higher mean scores relative to the highest possible attainable score, compared to that produced from a ten-point scale (Dawes, 2008; Jenkins & Taber, 1977; Lissitz & Green, 1975; McKelvie, 1978; Remmers & Ewart, 1941).

According to Likert (1932) the Likert scale was invented in order to measure ‗attitude' in a scientifically accepted and validated manner. This was supported by Edmondson (2005) and McLeod (2014). Park (2013) defined an attitude as preferential ways of behaving/reacting in a specific circumstance rooted in relatively enduring organization of belief and ideas (around an object, a subject or a concept) acquired through social interaction. The definition covers thinking (cognition), feeling (affective) and action (psychomotor) about attitude's dimension.

Table 3.7
Summary of Measurement Scale of Constructs

Construct	Nature	Dimension	Item	Scale	Type
Knowledge Management	Unidimensional	1	11	Interval	5 point
Corporate Entrepreneurship	Unidimensional	1	18	Interval	5 point
Public Service Motivation	Unidimensional	1	24	Interval	5 point
Organizational Commitment	Unidimensional	1	18	Interval	5 point
Job Performance	Unidimensional	1	14	Interval	5 point

3.5 Validity and Reliability

Both validity and reliability are concerned with the goodness of items measuring a particular construct. Researchers need to conduct both validity and reliability tests to ensure that the developed measurements are reasonably good and commonly accepted (Sekaran & Bougie, 2013). Validity examines the ability of measures to measure what was intended to be measured while the reliability test examines the degree to which measures are free from random error and produce reliable results.

3.5.1 Validity

According to Sekaran and Bougie (2013), validity refers to an assessment of how well an instrument that is developed measures the particular concept it is supposed to measure. Validity is concerned whether the researcher measures the right concept. Meanwhile, Collis and Hussey, (2009) and Sekaran (2003) explained the validity of a measurement instrument as the degree to which the instrument accurately measures. Validity is important for researchers to make sure the date collected represents the intention and concept of the research. Generally, there are four approaches to enhancing validity, and these are face validity, content validity, criterion validity, and construct validity. Most researchers employed only content validity and construct validity in their studies.

The purpose of content validity is to ensure that the measure contains an adequate and representative set of items that tap its validity. The greater the scale items represent the domain or universe of the concept being measured, the greater the content validity (Sekaran & Bougie, 2013). Content validity is also a function of how well the dimensions and elements of a concept have been delineated. Sekaran and Bougie (2013) suggested that a panel of judges could attest to the content validity of a developed instrument. Meanwhile, construct validity measures how well the results obtained from the use of the measure are appropriate for the designed theories (Sekaran & Bougie, 2013). It can be assessed by convergent and discriminant validity. Convergent validity is established when the scores gained with two different instruments measuring the same concept are correlated, while discriminant validity characterizes the two variables are predicted to be uncorrelated, and the scores obtained by measuring them are indeed empirically found to be so.

Construct validity can also be assessed using correlational analysis, factor analysis and multitrait, multimethod matrix of correlations (Sekaran & Bougie, 2013). Both correlation analysis and confirmatory factor analysis (CFA) were used to assess validity in this study. The average variance extracted (AVE) was applied to measure the convergent validity of the reflective constructs of this study, and Fornell-Larcker criterion and cross-loadings were established for discriminant validity (Hair, Hult, Ringle & Sarstedt, 2014).

3.5.2 Reliability

Sekaran and Bougie (2013) referred the reliability of a measures as the extent to which it is error free (i.e., without bias) and thus ensures consistent measurement over time and across the various items in an instrument. In other words, reliability measure is an indication of the stability and consistency by which an instrument measures the concept and helps to examine the ‗goodness‘ of a measure. Composite reliability (CR) was apllied to measure the internal consistency of the adapted constructs. The measurements were computed in term of inter-correlations among items measuring each concept (Sekaran & Bougie, 2013). The consistency of instruments used to measure the construct of study provides a high level of reliability.

3.6 Questionnaire Translation

The questionnaire was initially prepared in the English language as it is the original version. It was then translated into Bahasa Malaysia, the main language of the potential respondents. Since most of the respondents in the local government services were Malays, there was a need for a Bahasa Malaysia version of the questionnaire. The translation into Bahasa Malaysia also needed to be done in order to minimize the possibility of a low response rate due to the language difficulties.

The questionnaire was first translated by Dr. Junaini Kasdan, a senior lecturer from Pusat Pengajian Pembangunan Insan dan Teknokomunikasi, Universiti Malaysia Perlis in Perlis. The translated questionnaire was then re-checked and verified by Dr. Armanurah Mohamad, a senior lecturer at School of Business Management, Universiti Utara Malaysia (UUM) and the researcher's supervisor. The verification was done to ensure the translation was not misleading, did not use ambiguous management terminology, as well as the concerned for the accuracy of meaning. The translated questionnaire was then retranslated into the English version. This approach is known as ‗back to back translation' procedure (Saunders, Lewis & Thornbill, 2009). Once the translation procedure was completed, both the researcher and supervisor discussed and compared both English and Bahasa Malaysia versions of the questionnaire, and it was found that they were accurately the same in terminology, meaning and contents.

3.7 Pilot Study

For the purpose of reaffirming the validity and reliability of the instruments of this study, a pilot study was conducted prior to the actual data collection. A pilot study is a small scale exploratory research technique that uses sampling but does not apply rigorous standards (Zikmund, 2010). The data from the pilot study is useful for the conduct of a situational analysis and pre-testing the survey questionnaires. The test was conducted for the period August 2013 to October 2013 for the purpose of refining the questionnaire and examining the reliability value each of the instrument. The test was necessary for achieving on the understanding about content and discovering any weak points either in statements, wordings, formating and other types of error.

The questionnaire was pilot-tested among 46 administrative officers (grade N41 to N54) who were attached to Universiti Utara Malaysia (UUM), Universiti Malaysia Perlis (UNIMAP), Universiti Sains Islam Malaysia (USIM) and Lembaga Tabung Haji (LTH). The test was to gather some insights into the real condition of the actual study which enable the researcher to expect and correct the potential problems during the full scale research. It also helped to ascertain that the items or questions in the questionnaire were properly worded and well understood by the potential respondents (Sekaran & Bougie, 2013). The test also achieved its aim to validify and assesss the reliability of the study instruments.

The path algorithm of the partial least squares structural equation modeling (PLS-SEM) was employed in the analysis of data obtained during the pilot test. The analysis was to identify the internal consistency reliability and validity of all the reflective constructs from this study by calculating the composite reliability (CR) and average variance extracted (AVE) (Geladi & Kowalski, 1986; Lohmoller, 1989). From Table 3.9, the reliability assessment of all reflective constructs was attained where the values were more than the critical value of 0.7 as recommended (Bagozzi, Yi & Phillips, 1991; Hair, Ringle & Sarstedt, 2011). The convergent validity of all reflective constructs was also attained since each of them provided an AVE value of at least 0.5 (Hair, Hult, Ringle & Sarstedt, 2014).

Table 3.8
Pilot Test: Reliability and Convergent Validity (n=46)-Reflective

Constructs	**Items**	**CR**	**AVE**
Job Performance	14	0.893	0.806
Knowledge Management	11	0.904	0.824
Organizational Commitment	18	0.847	0.652

The Fornell and Larcker's (1981) criterion was applied to reaffirm the discriminant validity of these constructs. In order to achieve discriminant validity, the square root of the AVE of each reflective construct must be greater than its correlations compared to any other constructs (Fornell & Larcker, 1981; Hair et al., 2014). As shown in Table 3.10 and Table 3.11 the discriminant validity of first-order and second-order constructs have been attained, where the square root of the AVE of each construct was bigger than its correlation as compared to other reflective constructs of this model.

Table 3.9

Pilot Test: Discriminant Validity (n=46)

	CE_ INNO	CE_ PRO	CE_ RT	JP_ CP	JP_ TP	KM_ KC	KM_ KI	OC_ AFF	OC_ CONT	OC_ NORM	PSM_ COM	PSM_ PI	PSM_ PM	PSM_ SI
CE_ INNO	**0.760**													
CE_ PRO	0.413	**0.786**												
CE_RT	-0.137	-0.282	**0.804**											
JP_CP	0.435	0.511	-0.154	**0.766**										
JP_TP	0.247	0.385	-0.031	0.630	**0.742**									
KM_KC	0.329	0.585	-0.037	0.522	0.449	**0.783**								
KM_KI	0.361	0.374	-0.050	0.412	0.371	0.660	**0.760**							
OC_ AFF	0.165	0.362	0.028	0.441	0.435	0.221	0.146	**0.763**						
OC_ CONT	0.205	-0.057	0.421	0.124	-0.026	-0.041	0.042	0.237	**0.774**					
OC_ NORM	0.154	-0.084	0.264	0.159	0.087	0.067	0.090	0.411	0.751	**0.808**				
PSM_ COM	0.389	0.489	-0.165	0.462	0.147	0.442	0.407	0.181	-0.074	0.124	**0.766**			
PSM_PI	0.479	0.495	-0.136	0.617	0.341	0.424	0.416	0.372	0.194	0.287	0.711	**0.744**		
PSM_P M	0.161	0.227	0.076	0.403	0.392	0.533	0.351	0.296	0.114	0.322	0.621	0.555	**0.795**	
PSM_SI	0.342	0.464	-0.036	0.360	0.197	0.459	0.407	0.131	0.060	0.238	0.598	0.577	0.281	**0.714**

Note: The bolded diagonal values correspond to ―the square root of the AVE of the constructs”.

Table 3.10
Fornell-Larcker Criterion Analyses for Checking Discriminant Validity of Second-Order Constructs of JP, KM, and OC.

	CE	JP	KM	OC	PSM
CE	**NA**				
JP	0.516	**0.684**			
KM	0.491	0.555	**0.705**		
OC	0.140	0.294	0.121	**0.623**	
PSM	0.565	0.512	0.567	0.274	**NA**

Note: The bolded diagonal values correspond to the ―square root of the AVE of the constructs".

To examine the adopted second-order formative model (i.e., Corporate Entrepreneurship & Public Service Motivation), Hair et al. (2014) outlined two conditions to assess each indicator for it to enter into the construct. First, to assess the level of collinearity among the indicator, the researcher should consider the Variance Inflation Factor (VIF) values, should not be more than 5 and a tolerance value of 0.20 or lower. Second, to examine the significance of statistical contribution, outer weight in formative measurement model of each indicator to the construct should be analyzed for their significance and relevance only if collinearity is not at a critical level (Hair et al., 2014).

Table 3.11
Measurement Model: VIF and Indicators Significance Testing Result

Second Order Construct	Scale Type	Item	Weights	Tolerance	VIF	T-Value
Corporate Entrepreneurship	Formative	Innovativeness	0.716	0.799	1.252	8.493**
		Risk Taking	0.381	0.901	1.110	0.907 NS
		Proactiveness	-0.191	0.728	1.374	3.955**
Public Service Motivation	Formative	Policy making	0.287	0.717	1.395	4.191**

	Public interest	0.373	0.499	2.006	6.114**
	Compassion	0.124	0.845	1.183	7.689**
	Self-sacrifice	0.410	0.702	1.425	5.770**

‗P<0.01”**

As shown in Table 3.11, the VIF value of each indicator of the second-order formative construct (i.e., corporate entrepreneurship and public service motivation) was below the critical value of 5. It indicates the non-existence of multicollinearity between the indicators. Next, the outer weights values of innovativeness and proactiveness proved a strong evidence of each formative indicator‘s relative contribution to the main construct, whereas risk-taking was not significant. The outer weights of policy-making, public interest, compassion, and self-sacrifice formative indicators resulted as the relative contribution to the main construct. The absolute contribution was given by formative indicator‘s outer loading, which is always provided along with the indicator weights. Further, it differs from the outer weights, because the outer loadings stemmed from single regressions of each indicator on its corresponding construct which in PLS-SEM is equivalent to the bivariate correlation between each indicator and the construct (Hair et al., 2013). Therefore all the five indicators were found important to the second-order formative constructs and were reliable and valid for the study (Hari et al., 2014).

Besides the statiscal analysis, adjustments were also made to the questionnaires based on the responses and feedbacks obtained during the pilot test. For example item 7 on Section A of knowledge management measurement; ‗I obtain useful information/

suggestion from brainstorming meetings without spending too much time” was changed into 2 different statements to “I obtain useful information from brainstorming meetings without spending too much time”, and I obtain useful suggestion from brainstorming meetings without spending too much time”. The original 10 item questionnaire now consisted of 11 items to measure knowledge management in this study. Several changes were also made such as expanding the font size, highlighting (bold) the important words and restructuring the instruction to enable respondents to understand what they need to do. Some minor errors such as spelling mistakes and ambiguous instruction were detected and corrected to make the scales better understood. Thus the validity and reliability of the measures and instruments used in this study were confirmed during the pilot test.

3.8 Data Collection Procedure

The respondents in this study were the Management and Professional Groups (MPG) of Local Government authorities, and the unit of analysis was individual. Data were gathered from self-administered questionnaires which were randomly distributed to the sample of respondents selected from the sampling frame. Aprovals were needed from the departments of the Ministry of Urban Wellbeing, Housing and Local Government (MHLG) before the questionnaire sets were distributed to respondents via the person-in-charge. It began with contacting the heads of the department from Human Resource Department from each of the Local Government Offices by phone calls. Once the researcher managed to talk with the person-in-charge, the researcher prepared and mailed an official letter to get an approval for the data collection. The number of questionnaire sets distributed in each department and unit was based on a number of respondents in each *n* element which were determined through systematic random sampling method.

A total of 1336 questionnaires were systematically distributed to the respondents. They were given a one month period to response to the questionnaires. Each respondent was given a copy of the questionnaire together with a cover letter that included an appeal for participation. The cover letter gave a clear explanation of the purpose behind the research, assuring the respondent anonymity, and an offer to send a copy of a summary of the findings to those who were interested. The letter also stressed that any information provided would be treated with strictest confidence and would be used only for academic purposes. The respondents were then asked to return the completed questionnaires using the self-addressed returned envelopes attached together with the cover letter. The data collection process lasted from January 2015 until May 2015.

3.9 Data Analysis

All the gathered data were analyzed with the Statistical Package for Social Sciences (SPSS) version 21. This software was a platform for the purpose of data entry and examination of some basic analysis. The software was also employed for missing value detection and replacement, outliers' detection as well as for conducting test for normality. The SPSS was also used to analyze profile of the respondent including frequency and percentage, means and standard deviations.

To test the sets of developed hypotheses and examining the complex relationships involving the mediating role of public service motivation and moderating role of organizational commitment, the Smart-PLS or Partial Least Square (PLS-SEM) path modeling was employed (Henseler, Ringle & Sinkovics, 2009). This path modeling was developed by Wold (1985) as a method for estimating path models which involve latent constructs that are indirectly measured by multiple indicators. Hence, PLS method is one of the structural equation models (SEM) that could estimate associations through regression among latent variables and its indicators.

There are several advantages of using Smart-PLS for the testing of hypotheses in this study. First, PLS modeling is known as the suitable analysis for relative complex model with a large number of indicators or latent variables and accommodates for a study that involves complex model set-ups which are easily conceivable such as estimation of moderating effects, mediating effects or hierarchical components models and as well it involves in formative second order variables (Hair, Sarstedt, Hopkins & Kupplewieser, 2014b). Second, PLS-SEM is applicable in a situation that involves the relationship between latent variables with its measurement that needs to be measured in different ways (formative and reflective). Since the study was modeled with both formative and reflective measures, it was necessary to apply PLS-SEM to examine the formative constructs. Unlike CB-SEM, which aims to confirm theories by determining how well a model can estimate a covariance matrix for the sample data, PLS-SEM operates much like a multiple regression analysis (Hair et al., 2011). This characteristic makes PLS-SEM particularly valuable for exploratory research purposes. According to Lohmoller and Wold (1980);

> *"PLS is primarily intended for research contexts that are simultaneously data-rich and theory-skeletal. The model building is then an evolutionary process, a dialog between the investigator and the computer. In the process, the model extracts fresh knowledge from the data, thereby putting flesh on the theoretical bones. At each step, PLS rests content with the consistency of the unknowns (p.1)".*

Third, PLS-SEM has less restriction on assumptions as data distribution does not require for the normality, small sample sizes and formative measured constructs (Hair et al., 2014a). For example, the minimum sample size for a PLS model should be equal to the larger of the following; ten times the largest number of formative indicators used to measure one construct; or ten times the largest number of inner model paths directed at a particular construct in the inner model (Barclay, Higgins & Thompson, 1995).

Finally PLS-SEM path modeling is able to handle problematic modeling issues that routinely occur in the social sciences such as unusual data characteristics (e.g. non-normal data) and highly complex models. In addition, PLS-SEM has been widely recognized and used in many academic disciplines including marketing (Hair et al., 2012b), strategic management (Hair et al., 2012a), management information systems (Ringle, Sarstedt & Straub, 2012), operations management (Peng & Lai, 2012), and accounting (Lee, Petter, Fayard & Robinson, 2011). Thus the employment of the Smart-PLS version 2.0 (3M) for the data analysis in this study is justified (Ringle, Wende & Will, 2005).

The process of data analysis started with the coding and entering data in the SPSS. The data were then screened and cleaned by detecting and replacing the missing values and testing as well as treating outliers (extreme values). By using PLS-SEM, the assessment of validity and reliability was done through examination of measurement model followed with the structural model with the bootstrapping procedure of 1000 samples (Hair et al., 2014a). The results were interpreted from the path coefficient (beta) and t-value, R^2 value, effect size (f^2), and by predictive relevance (Q^2) of the structural model (Hair et al., 2014a). For the final stage, the mediating relationship was analyzed by bootstrapping indirect effect as general suggestions of mediation analysis, followed by the moderating relationship as the interaction results produced by the bootstrapping procedures (Hair et al. 2014a).

3.10 Summary of the Chapter

This chapter discussed and elaborated the methodology used in the study especially the research design and the employment of quantitative method. The chapter clearly defined the population and the sampling frame, and determined the sample size in order to have representation of the population. Questionnaire design and instrumentations were described which were adapted from some previous studies, and validity and reliability were explained. The pilot testing together with the procedures of data collection were also discussed. Finally techniques of data analysis such as SPSS and PLS SEM were proposed and justified.

CHAPTER FOUR

ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents and describes results of the analyses performed in this study. The chapter begins with the discussion on the data collection process and the response rate, followed by the methods of data cleaning and screening process. The profiles of the respondents are also presented together with the mean scores for the variables used in the study. Four hypotheses were tested and the results are presented in the forms of direct relationships between the independent variables and dependent variable, and the indirect relationships with the inclusion of a moderating variable and tested in these relationships. Finally the findings and its summary are presented at the end of the chapter.

4.2 Data Collection and Response Rate

The process of data collection began on the 19th January 2015 and ended on the 30th May 2015, taking a period about four and half months. Questionnaires with self-addressed envelopes were post-mailed in stages to a total of 1336 systematic randomly selected respondents for a desired desired sample size of 344 as suggested by Krejcie and

Morgan (1970). During the period of data collection, series of follow-up messages and gentle reminders were carried out by the researcher through telephone calls and emails to respondents in order to urge, encourage and remind them to respond. A total of 749 of responses were received which represented a response rate of 56.1 percent. However, 21 of the responses were discarded due to incomplete submission where more than 25 percent of the questions were left unanswered (Cavana, Delahaye & Sekaran, 2001). Only 728 samples were deemed usable which resulted in an effective response rate of 54.5 percent. These data were coded and keyed-in into the IBM Statistical Package for Social Sciences version 21 (IBM SPSS ver. 21)

4.3 Data Screeening

Data screening process was performed before the final data analysis to explore the characteristics and verify the accuracy of data, to check for any missing information, pattern of missing data, extreme responses, the appropriateness of numerical codes for each variable under study, analysis of outliers, test of normality of data distribution and multicollinearity test. Screening was also done to determine whether the data meet the statistical requirements for the analysis (Tabachnick & Fidell, 2007; Hair, Black, Babin, Anderson & Tatham, 2010; Pallant, 2013).

4.3.1 Missing Value Analysis

Missing data refers to the valid values on one or more variables not available for analysis (Hair et al., 2010). The effects of missing data on data analysis could emerge in term of the results of analysis, sample size, generalization, and bias when data are not random and the application of the remedies is inappropriate. Hence, to avoid missing data, immediate approaches were taken such as telephone calls made to the person in-charge to remind all respondents in completing the questionnaire, and checking the responses made at the time of survey collection were delivered. However, there were several parts of the questionnaire that were not answered by some respondents. Out of 728 cases, 95 questionnaires contained some missing answers which accounted for 13 percent. According to Hair, Black, Babin, & Anderson and Tatham (2006), mean substitution is the most widely applied approach, as mean is the best single replacement value. All the missing values were treated with the Missing Value Analysis application in SPSS according to the steps given.

4.3.2 Assessment of Outliers

Outliers are observed data with a unique combination of characteristics identifiable as distinctly different from the other observations (Hair et al., 2010). Outlier data emerge in a situation of high or low value on a variable or a unique combination of values across several variables that make the observation stand out from others. Outliers could have a marked effect on any type of empirical analysis. Tabachnick and Fidell (2013) defined outliers as those with standardized residual values of about 3.3 (or less than -3.3). It can have a dramatic effect on the correlation coefficient, particularly in small samples. In some circumstances, outliers can make the r value much higher than it should be, and in other circumstances, they can result in an underestimate of the true relationship. A scatterplot can be used to check for outliers by just looking the values that are sitting out on their own. Outliers could be due to a data entry error (typing or coding), a careless answer from a respondent or it could be a true value from a rather strange individual (Pallant, 2013).

Any scores SPSS consider as outliers appear as little circles with a number attached (this is the ID number of the case). Outliers are cases with scores that are quite different from the remainder of the sample either much higher much lower. SPSS detects points as outliers if they extend more than 1.5 box lengths from the edge of the box. Extreme points (indicated with an asterisk,*) are those that extend more than three box-lengths from the edge of the box. Following the guidelines from Pallant (2013), the techniques described can be used to check for outliers. First, the researcher needs to look at the Histogram and refers the tails of the distribution. Since the date points did not sit on their own, there are potential outliers. Second, the researcher inspects the Boxplot and any scores that are considered outliers appear as a little circle with a number attached (this refers to the ID number of the case) and the extreme points would also appear (indicated with an asterisk*).

According to Tabachnick and Fidell (2013), it is very important to check that the outlier‘s score is genuine, not just an error. Sometimes, the error could be a mistake during data entering so it is worth inspecting back. The researcher has checked each of the outlier‘s score based on the ID of each case and confirmed it is the genuine score. Some statistics writers suggested removing all extreme outliers from the data file while others suggested changing the value to a less extreme value, including the person in the analysis but not allowing the score to distort the statistics (Tabachnick & Fidell, 2013). In this study 46 cases were detected as outliers (case 5, 12, 13, 27, 50, 57, 72, 76, 93, 111, 115, 126, 159, 161, 170, 173, 174, 175, 179, 190, 191, 199, 278, 323, 331, 332, 333, 352, 358, 377, 384, 395, 401, 402, 457, 511, 520, 538, 542, 561, 596, 607, 678, 681, 693 and 725) and deleted leaving the study with valid cases of 682.

4.3.3 Data Normality

Data normality is the most fundamental assumption in multivariate analysis. It is referred to the shape of the data distribution for an individual metric variable, and its correspondence to the normal distribution as the benchmark for statistical methods (Hair et al., 2010). Normality also refers to a description of a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle with smaller frequencies towards the extremes. Normality can be asseessed to some extent by obtaining skewness and kurtosis values (Pallant, 2013). There are also other techniques in SPSS to run the normality test. If the variation from the normal distribution is sufficiently large, all resulting statistical tests are invalid since normality is required to use the F and t statistics (Hair et al., 2010).

Normality is an issue as it is one of the basic assumptions required for the purpose of carrying out structural equation modeling (SEM) analysis (Byrne, 2010). However the normality problem is less an issue when using PLS-SEM because PLS-SEM applies the bootstrapping method for obtaining the significant relationship from a model with non-normal dataset (Hair, Hult, Ringle & Sarstedt, 2013). PLS-SEM does not require any normal-distributed input data (Urbach & Ahleman, 2010) and this becomes one of the major advantages of using PLS-SEM. Nevertheless, Hair et al., (2013) recently suggested that researchers should perform a normality test on the data. Straight lining and inconsistent responses should be removed from the data set, and outliers and offending responses should be recognized and removed from the data set before running PLS-SEM (Hair et al., 2013). Lack of normality in variable distribution could distort the results of multivariate analysis. If absolute skewness value is greater than 1, this means the data are extremely indicative of non-normal and should be removed before PLS-SEM is applied (Hair et al., 2013).

Graphical method was employed to check for the normality of data collected (Tabachnick & Fidell, 2007). Field (2009) proposed that in large sample of 200 or more, it is more important to look at the distribution graphically rather than looking at the value of the skewness and kurtosis statistics. He added that a large sample decreases the standard errors, which in turn inflates the value of the skewness and kurtosis statistics. Therefore, this justified the reason for using a graphical method of normality test rather than statistical methods. Based on Field's (2009) suggestion, histogram, and normal probability plots were examined to ensure that normality assumptions were not violated. Figure 4.1 shows the histogram and normal probality plots. It depicts that behavior of data did not deviate from the normal curve, and normality assumption was achieved since all the data were associated on the normal curve.

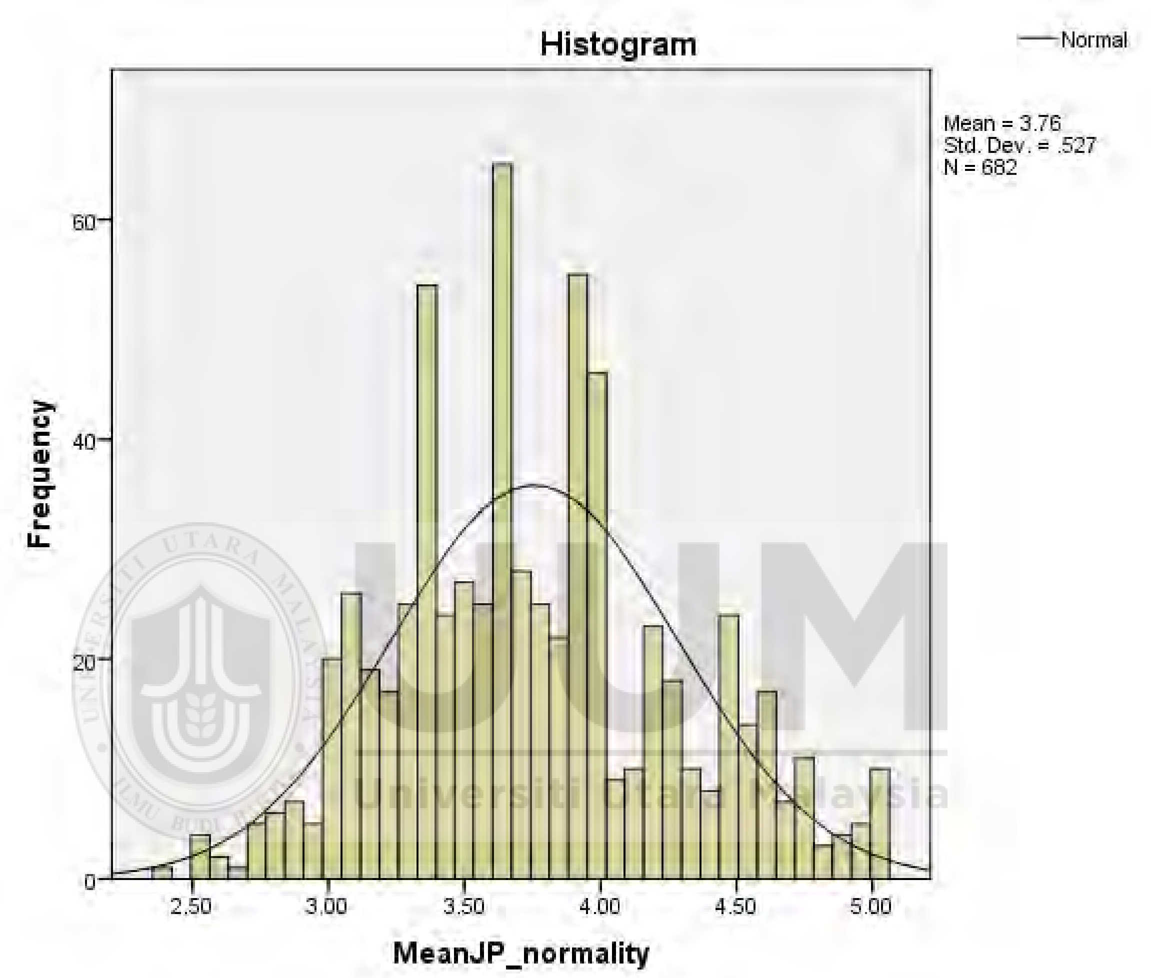

Figure 4.1
Histogram and Normal Probability Plots.

4.3.5 Non-Response Bias

Non-response bias is a test to determine whether responses of those who have not responded are different from those who have responded. Lambert and Harrington (1990) defined non-response bias as the differences in the answers between non-respondents and respondents. For the purpose of estimating the possibility of non-response bias, Armstrong and Overton (1977) recommended a time-trends extrapolation approach, which compares the early and late respondents. Extrapolation methods are based on the assumption that subjects who respond ‗less readily' are more like non-respondents (Robert, 1939). ―Less readily" has been referred as answering later, or as requiring more prodding to answer. These respondents who responded late had similar criteria to non-respondents. A study from Lindner and Wingenbach's (2002) proposed that researcher should achieve a minimum response rate of 50%. Majority of the respondents in this study, which is 728 (54.5%), responded to the questionnaire within the time frame given. None of the respondents replied after the time frame given. Since the response rate in this study is high (54.5%), none of the non-response bias test was conducted in order to examine any differences emerged. Lindner and Wingenbach (2002) further argued that if a study achieves 50 percent of response rate, the issue of non-response bias would not appear. Although non-response bias test was not conducted, it was not a major concern for this study.

4.3.6 Common Method Variance

Common method variance (CMV) also known as monomethod bias refers to the variance that is attributable to the measurement method rather than to the construct of interest (Podsakoff, Mackenzie, Lee & Podsakoff, 2003). Many researchers have generally agreed that common method variance is a critical problem of the measurement validity in self-report surveys (Lindell & Whitney, 2001; Podsakoff et al., 2003; Spector, 2006). Several efforts were made to reduce such bias during instrument development stage such as modifying item wordings in the questionnaire to avoid vague concepts. Participants were also informed that their answers were strictly confidential throughout the research process.

Two types of test could be conducted on common method variance; Harman‘s 1976 One-factor test and Confirmatory factor analysis (CFA). Harman‘s (1976) one-factor test is one of the most widely applied techniques that address the issue of common method variance (Podsakoff et al., 2003). Podsakoff et al., (2003) defined the process of Harman‘s single-one-factor test as loading of all variables of a study into exploratory factor analysis and then, examining the unrotated factor solution to determine the numbers of factors that explain the variance in the variables. In order to determine the presence of common method variance, one factor will appear from the factor analysis or one particular factor will explain the majority of the covariance among the measures. The confirmatory factor analysis (CFA) could be considered in examining one factor that would account for all variances in the variables (Iverson & Macguire, 2000; Korsgaard & Roberson, 1995). With eigenvalues greater than 1 and no single factor emerged from the unrotated factor solution and accounted for the majority of the covariance among variables, the results derived from the analysis on all variables indicated a cumulative of 30.15% of the variance factors, which is less than 50 percent (Kumar, 2012). Therefore this study does not illustrate any sign that indicate the presence of common method variance (CMV).

4.3.7 Demographic Profile of Respondents

This section describes the demographic profile of the respondents in the sample. The demographic items examined in this study include the gender of the respondents, age, educational levels, grades in current position, and years of current position. The demographic profile of the respodents is illustrated in Table 4.1.

Table 4.1
Demographic Profile of the Respondents

	Frequency	**Percentage**
Gender:		
Male	378	55.6
Female	302	44.4
Total	680	100%
Age:		
21 - 30 years	152	22.4
31 - 40 years	281	41.3
41 - 50 years	158	23.2
Above 50 years	89	13.1
Total	680	100%
Highest Education:		
Diploma	78	11.8
Undergraduate	462	70.0
Master	105	15.9
Doctor of Philosophy	4	0.6
Other professional qualification	11	1.7
Total	660	100%
Grade of current position:		
Grade 41	398	65.1
Grade 44	124	20.3
Grade 48	69	11.3
Grade 52	9	1.5
Grade 54	11	1.8
Total	611	100%

Number of years in current position:		
Less than 1 year	81	12.3
1 - 5 years	242	36.8
6 - 10 years	122	18.5
11 - 15 years	100	15.2
16 - 20 years	43	6.5
21- 25 years	29	4.4
More than 25 years	41	6.2
Total	658	100%

The Table shows that 378 (55.6%) of the respondents were male while another 302 (44.4%) were female. This indicates that the local government sector is male dominated while the proportion of female in the middle managerial level is increasing. The composition of age saw that 439 respondents or 64.5 percent fall into the category of age ranging from 31 years to 50 years old. Another 89 respondents (13.1%) were in the age group of above 50 years, and the remaining 152 respondents (22.4%) were in the age of 30 years and below. In terms of education level, 78 respodents (11.8%) possessed a diploma, 462 respondents (70%) obtained a first degree, while 105 respondents (15.9%) had a master degree, and another 4 respondents (0.6%) achieved a PhD. A majority of the respondents (398 or 65.1%) were in the lowest category of service (Grade 41) at the managerial level, while only 11 respondents (1.8%) attained the grade 54 scale.

The respondents‘ years of service in the current position ranged from 1 to 5 years (242 or 36.8%), between 6 to 10 years (122 or 18.5%), between 11 to 15 years (100 or 15.2%), between 16 to 20 years (43 or 6.5%), and between 21 to 25 years (29 or 4.4%). Another 41 respondents (6.2%) had more than 25 years of experience in the current position, while 81 respondents (12.3%) were new recruits with less than a year in service with the local authorities.

4.4 PLS-SEM Path Modeling

The measurement model and the structural model were assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The use of PLS-SEM in this study came with several advantages. PLS-SEM is able to accept and works very well with smaller number of sample size, no assumption on the non-normality data, capable to run data measurement with both reflective and formative items also could handle single-item constructs, and implies no identification problems (Hair et al., 2014). PLS-SEM is also known to be efficient in estimating parameters which then results in the outcome of high statistical power than the CB-SEM (Hair et al., 2014). Thus PLS-SEM receives the most and highest ranking of popular and favorable approach to researchers from various disciplines.

In addition PLS path modeling provides more accurate estimates of mediating and moderating effect by accounting for the measurement error that attenuates the estimated relationships and improves the validation of theories (Chin, Marcolin & Newsted, 2003; Helm, Eggert & Garnefeld, 2010; Henseler & Fassoft, 2010). According to Wetzels, Odeken, Schroder & van Oppen, (2009) in Akter, Ambra and Ray (2014):

> *"This approach also allows us to derive the (indirect) effects of lower-order constructs, or dimensions, on outcomes of the higher-order construct".*

Structural equation modeling (SEM) enables researchers to incorporate unobservable variables measured indirectly by indicator variables. It also facilitates accounting for measurement error in observed variables (Chin, 1998). There are two types of SEM. First is Covariance-Based SEM (CB-SEM) which is primarily used to confirm (or reject) theories (i.e., a set of systematic relationships between multiple variables that can be tested empirically). It does by determining how well a proposed theoretical model could estimate the covariance matrix for a sample data set. Second is PLS-SEM which is primarily used to develop theories in exploratory research. This applies by focusing on explaining the variance in the dependent variables when examining the model. PLS modeling is a favorable approach for estimating complex models because it can ensure more theoretical parsimony and less model complexity (Chin, 2010; Edwards, 2001; Law, Wong & Mobley, 1998; MacKenzie, Podsakoff & Jarvis, 2005; Wetzels, Oderkerken-Schroder, & van Oppen, 2009). PLS path modeling also delivers robust solutions, especially when the objective is prediction, the model is relatively complex, the sample size is small, and the phenomenon understudying is new or changing (Chin & Newsteed, 1999).

This study employed PLS-SEM due to the presence of the second-order formative constructs; Corporate Entrepreneurship and Public Service Motivation. It is also beneficial to use the PLS-SEM as the more perfect statistical technique rather than the use of Covariance Based Structural Equation Modeling (CB-SEM) or others. Therefore, Therefore PLS SEM was used for the assessment of the measurement model and the evaluation of the structural model. The study applied a two-step process of PLS Path Model Assessment as suggested by Henseler, Ringle, and Sinkovics (2009). The assessment of a measurement model, and the assessment of a structural model, is illustrated in Figure 4.2 (Hair et al., 2014a; Hair, Sarstedt, Ringle, & Mena, 2012a; Henseler et al., 2009).

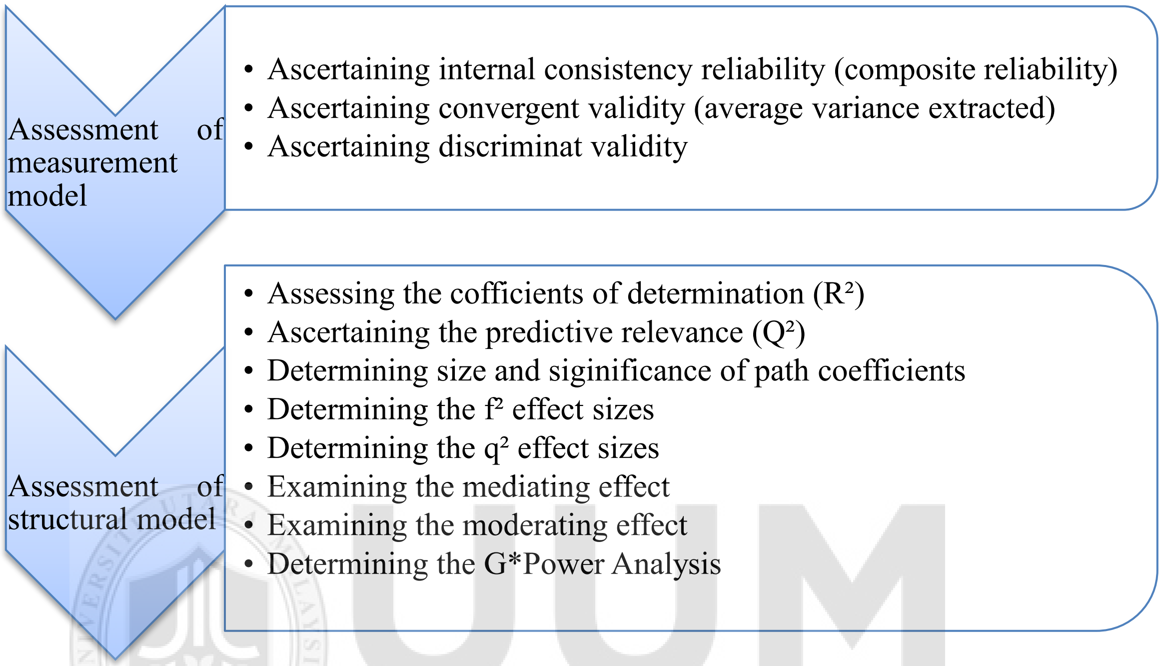

Figure 4.2
A Two-Step Process of PLS Path Model Assessment

(Source: Henseler et al., 2009 & Hair et al., 2014a)

4.4.1 Assessment of the Measurement Model

For evaluating the measurement model, the reliability of individual items measuring each latent construct, the internal consistency reliability (i.e., construct reliability), discriminant validity, as well as convergent validity for each of reflective constructs were assessed (Hair et al., 2014a; Henseler et al., 2009). For the formative construct, two conditions must be examined on each indicator for it to be important in the construct or not (Aminu, 2015 & Hair et al., 2014a). First, the potential collinearity issues among the indicators applying the tolerance level –(represents the amount of variance of one formative indicator not explained by the other indicators in the same block, Hair et al., 2014a, p. 124) or variance inflation factor (VIF) values, defined as the reciprocal of the tolerance)” (Hair et al., 2014a, p. 124). In the context of PLS-SEM, a tolerance value of 0.20 or lower and a VIF value of 5 and higher respectively designate a potential collinearity problem (Hair, Ringle, & Sarstedt, 2011). The second condition is to examine the (statistical) significance and relevance of each formative indicator to the main construct.

The measurement model analyses of reliability for the reflective construct as well the validity of both reflective and formative constructs were examined based on this new model (i.e., Figure 4.3). The first set of analysis conducted comprises the individual item reliability as well as construct reliability and validity of the reflective construct. Then, the evaluation of collinearity among formative indicators was computed using VIF values and the (statistical) significance of the contribution for each indicator of the main construct were also calculated.

4.4.1.1 Individual Item Reliability of Reflective Measurement Models

For the purpose of determining the individual item reliability and other measurement model assessment, this study applied PLS algorithm (Hair et al., 2014a) as illustrated in Figure 4.4. The individual item or factor reliability of reflective constructs was assessed using the outer loadings of each construct‘s indicators (Hair et al., 2014a). The higher outer loadings on a construct indicate that the associated indicators have much in common, which is captured by the construct (Hair et al., 2014a). According to Hair et al., (2014a), a common rule of thumb that standardized is that an indicator with 0.70 outer loading is acceptable and reliable for the established developed scale. However, it is also stated that rather than automatically eliminating indicators with their outer loading of below 0.70, researchers should concern on the composite reliability, as well as the construct‘s content validity. As such, to remain the indicators, the outer loadings must be between 0.40 and 0.70 and it should be considered for removal only if the deletion leads to the increment of the composite reliability (CR) and Average Variance Extracted (AVE) value. Based on Hair et al., (2014) common rule of thumb, out of 85 items measuring 5 reflective (first order) constructs of this study, 20 items were deleted leaving the study with the remaining items which are considered acceptable for further analyses of PLS-SEM (refer Table 4.3- Results summary for reliability and validity of the constructs).

Assessment of reflective measurement model includes reliability to evaluate internal consistency, individual indicator reliability, and average variance extracted (AVE) to evaluate convergent validity. Following this, the Fornell-Larcker criterion and cross-loadings were used to assess discriminant validity. The following section addresses each criterion for the assessment of reflective measurement models.

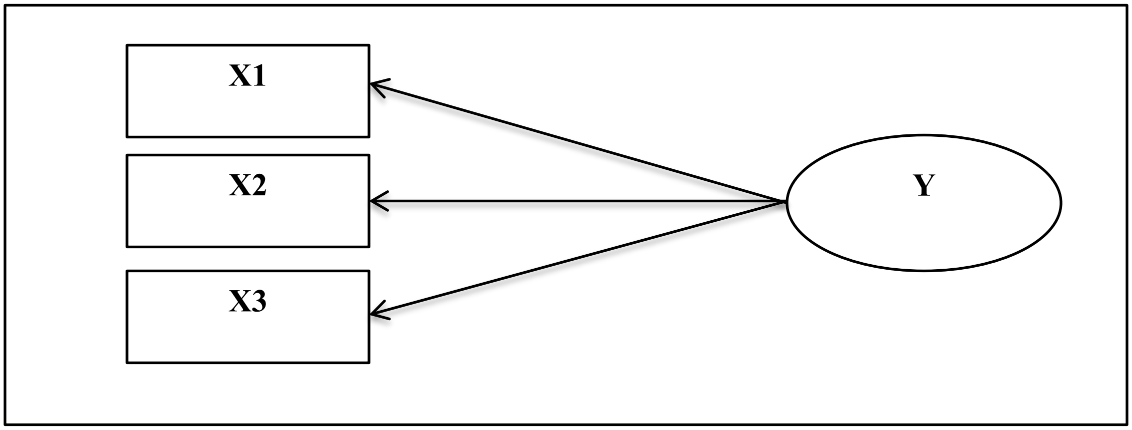

Figure 4.3
Reflective Measurement Model
Source: Hair et al., (2013)

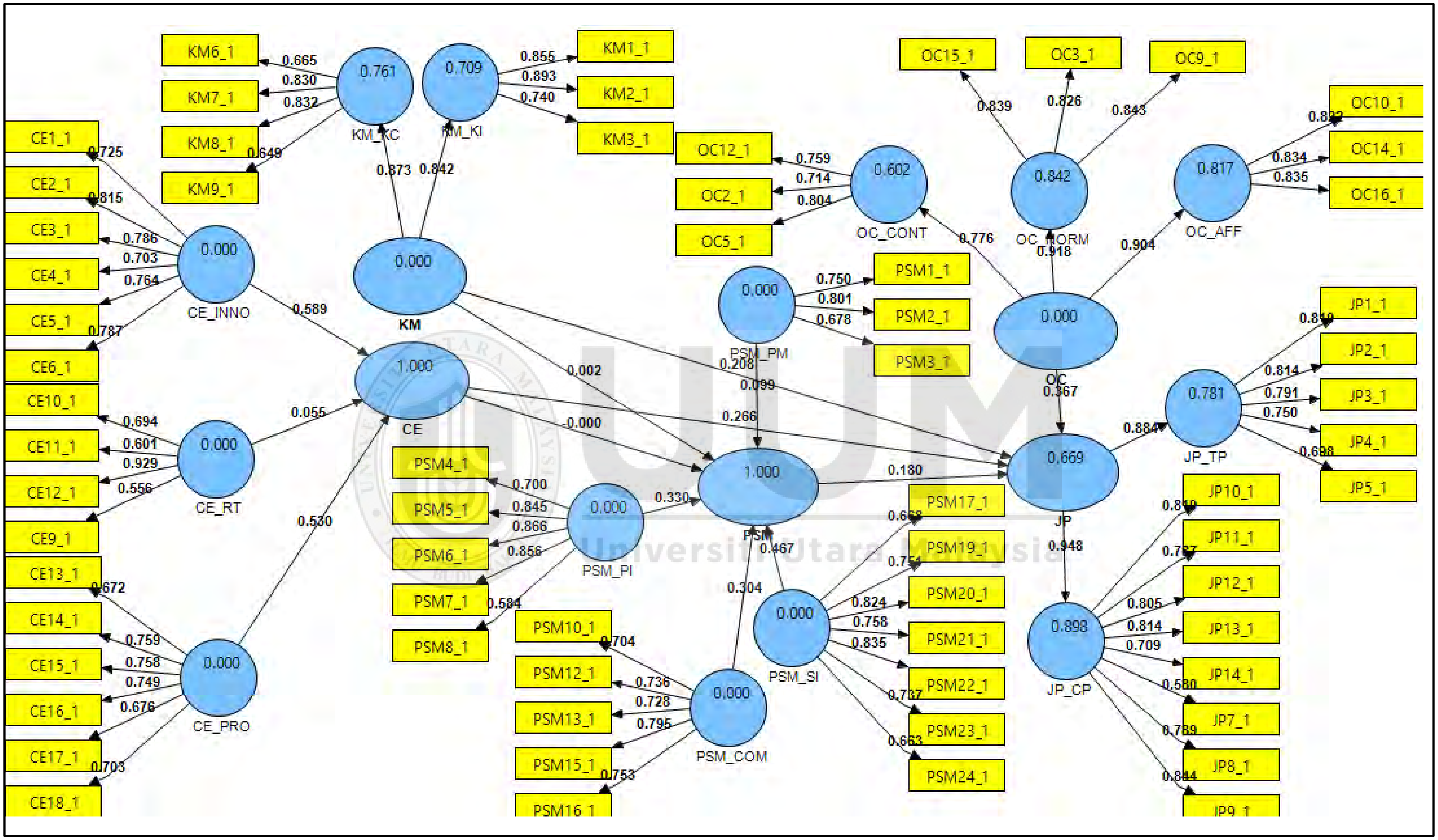

Figure 4.4

Measurement Model

KM- Knowledge Management; CE- Corporate Entrepreneurship; PSM- Public Service Motivation; OC- Organizational Commitment; JP- Job Performance

Table 4.2
Results Summary for Reliability and Validity of the Constructs

First Order Construct	Second Order Construct	Scale Type	Item	Loadings	AVE	CR	Item (s) deleted due to low loadings
Innovativeness		Reflective	CE1	0.725	0.584	0.894	-
			CE2	0.815			
			CE3	0.786			
			CE4	0.703			
			CE5	0.764			
			CE6	0.787			
Risk Taking		Reflective	CE9	0.556	0.502	0.795	7 & 8
			CE10	0.694			
			CE11	0.601			
			CE12	0.929			
Pro-activeness		Reflective	CE13	0.672	0.519	0.866	-
			CE14	0.759			
			CE15	0.758			
			CE16	0.749			
			CE17	0.676			
			CE18	0.703			

Table 4.2 (continued)

First Order Construct	Second Order Construct	Scale Type	Item	Weights	VIF	T-Value	Item (s) deleted due to low loadings
	Corporate Entrepreneurship	Formative	Innovativeness	0.589	1.435	31.584	
			Risk Taking	0.055	1.007	2.532	
			Proactiveness	0.530	1.443	29.392	

First Order Construct	Second Order Construct	Scale Type	Item	Loadings	AVE	CR	Item (s) deleted due to low loadings
Policy Making		Reflective	PSM1	0.750	0.555		-
			PSM2	0.801			
-			PSM3	0.678			
Public Interest		Reflective	PSM4	0.700	0.553		-
			PSM5	0.845			
			PSM6	0.866			
			PSM7	0.856			
			PSM8	0.584			
Compassion		Reflective	PSM10	0.704	0.606		9, 11 &14.
			PSM12	0.736			

Table 4.2 (continued)

First Order Construct	Second Order Construct	Scale Type	Item	Loadings	AVE	CR	Item (s) deleted due to low loadings
			PSM13	0.728			
			PSM15	0.795			
			PSM16	0.753			
Self-Sacrifice		Reflective	PSM17	0.668	0.563		18
			PSM19	0.751			
			PSM20	0.824			
			PSM21	0.758			
			PSM22	0.835			
			PSM23	0.736			
			PSM24	0.663			
First Order Construct	**Second Order Construct**	**Scale Type**	**Item**	**Weights**	**VIF**	**T-Value**	**Item (s) deleted due to low loadings**
	Public Service Motivation	Formative	Policy Making	0.099	1.159	9.870	
			Public Interest	0.330	1.720	29.572	
			Compassion	0.304	2.064	30.084	
			Self-Sacrifice	0.467	2.149	37.742	

Table 4.2 (continued)

First Order Construct	Second Order Construct	Scale Type	Item	Loadings	AVE	CR	Item (s) deleted due to low loadings
Knowledge Internalization		Reflective	KM1	0.855	0.692	0.870	-
			KM2	0.893			
			KM3	0.740			
Knowledge Creation		Reflective	KM6	0.665	0.561	0.835	4,5,10 & 11.
			KM7	0.830			
			KM8	0.832			
			KM9	0.649			
	Knowledge Management	Reflective	Knowledge Internalization	0.843	0.735	0.848	
			Knowledge Creation	0.872			
Affiliation		Reflective	OC10	0.822	0.689	0.857	1, 4 & 7.
			OC14	0.834			
			OC16	0.835			
Continuance		Reflective	OC2	0.714	0.577	0.803	8, 11 & 17.
			OC5	0.804			
			OC12	0.759			

Table 4.2 (continued)

First Order Construct	Second Order Construct	Scale Type	Item	Loadings	AVE	CR	Item (s) deleted due to low loadings
Normative		Reflective	OC3	0.826	0.699	0.893	6, 13 & 18.
			OC9	0.843			
			OC15	0.839			
	Organizational Commitment	Reflective	Affiliation	0.904	0.754	0.901	
			Continuance	0.776			
			Normative	0.918			
Task Performance		Reflective	JP1	0.819	0.602	0.883	6.
			JP2	0.814			
			JP3	0.791			
			JP4	0.750			
			JP5	0.698			
Contextual Performance		Reflective	JP7	0.580	0.597	0.921	-
			JP8	0.789			
			JP9	0.844			
			JP10	0.819			
			JP11	0.787			
			JP12	0.805			
			JP13	0.814			
			JP14	0.709			

Table 4.2 (continued)

First Order Construct	Second Order Construct	Scale Type	Item	Loadings	AVE	CR	Item (s) deleted due to low loadings
	Job Performance	Reflective	Task Performance	0.948	0.840	0.913	
			Contextual Performance	0.884			

Notes:

AVE= Average Variance Extracted- (summation of the square of the factor loadings) / {(summation of the square of the factor loadings)} / {(summation of the error variances)}.

CR= Composite Reliability- (square of the summation of the factor loadings) / {(square of the summation of the factor loadings)} / {(square of the summation of the error variances)}

VIF= Variance Inflation Factor

As can be seen from Table 4.2, apart from the 20 items that were removed from the analysis due to the measurement issues consequences, the other indicators have loadings of 0.70 and above except items CE9 (0.556), CE10 (0.694), CE11 (0.601), CE13 (0.672), CE17 (0.676), PSM3 (0.678), PSM8 (0.584), PSM17 (0.668), PSM24 (0.663), KM6 (0.665), KM9 (0.649), JP5 (0.698), and JP7 (0.580). These items were retained even though their loadings were below 0.70 since eliminating them would not provide any significant change to either AVE or CR. Thus, all the retained items are acceptable and reliable for the respective reflective latent constructs.

4.4.1.2 Internal Consistency Reliability of Reflective Models

The first criterion to be evaluated is internal consistency reliability. The traditional criterion for internal consistency is Cronbach's Alpha, which estimates the reliability based on the inter-correlations of the observed indicator variables. Cronbach's alpha assumes that all indicators are equally reliable (i.e., all the indicators have equal outer loadings on the construct). However, Cronbach's alpha is sensitive to the number of items in the scale and generally tends to underestimate the internal consistency reliability. As such, it may be applied as a conservative measure of internal consistency reliability. However, due to a lack of Cronbach alpha's limitation in the population, it is more practical to apply a different measure of internal consistency reliability, which is referred as composite reliability (CR) (Hair et al., 2014a).

The composite reliability takes into account the different out loadings of the indicator variables. The CR varies between 0 and 1, with higher values indicating higher levels of reliability. Commonly, the CR values of 0.60 to 0.70 are acceptable in exploratory research, while in more advanced stages of research, values between 0.70 and 0.90 can be regarded as satisfactory (Nunally & Bernstein, 1994). In contrast, composite reliability values below 0.60 indicate a lack of internal consistency reliability (Hair et al., 2014a).

Table 4.2 shows the composite reliability coefficients of the latent constructs. As can be seen from the Table 4.2, the composite reliability coefficient of each latent constructs ranged from 0.795 to 0.921, which each exceeding the minimum acceptable level of 0.70, suggesting adequate internal consistency reliability of the measures used in this study (Hair et al., 2014a).

4.4.1.3 Convergent Validity of Reflective Models

Convergent validity refers to the extent which a measure correlates positively with alternative measures of the same constructs (Hair et al., 2014a). To establish convergent validity, the outer loadings of the indicators, as well as the Average Variance Extracted (AVE) should be considered. This value is referred as the grand mean value of the squared loadings of the indicators associated with construct. Hence, the AVE is equivalent to the communality of a construct. High outer loadings on a construct indicate that the associated indicators have much in common, which is captured by the constructs. In order to achieve the adequate convergent validity, Chin (1998) recommended the AVE of each latent construct should be 0.5 or higher.

Based on Chin (1998), the AVE values (see Table 4.2) exhibited high loadings (>0.5) indicating that on average, the constructs explain more than half of the variance of its indicators. However, if an AVE of less than 0.50, it indicates that, on average, more error remains in the items than the variance explained by the constructs. The results of this investigation show that this study‘s measurement model has demonstrated an adequate convergent validity.

4.4.1.4 Discriminant Validity of Reflective Model

Discriminant validity refers to the extent to which a construct is truly distinct from other constructs by empirical standards (Hair et al., 2014a). Establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model. Hair et al., (2014a) proposed two measures of discriminant validity; First method for assessing discriminant validity is by examining the cross-loadings of the indicators. An indicator‘s outer loadings on the associated constructs should be greater than all of its loadings on other constructs (i.e., cross-loadings). The presence of cross-loadings that exceeds the indicators‘ outer loadings represents discriminant validity. Second method is the Fornell-Larcker criterion and it is more conservative approach to assessing discriminant validity (Hair et al., 2014a). It can be calculated by comparing square root of AVE for each construct with its correlations with other constructs (Chin, 1998).

The first assessment of discriminant validity is to examine the indicators‘ loadings with respect to all construct correlations. For the reflective latent variable to have discriminant validity using cross-loadings method, the indicator‘s outer loadings should be greater than all of its loadings on other constructs (i.e., the cross-loadings) (Hair et al., 2014a). This criterion is generally considered rather liberal in terms of establishing discriminant validity (Hair et al., 2011). The assessment of the discriminant validity based on the cross-loadings criterion is presented in Table 4.3 and Table 4.4.

As can be seen from Table 4.3 (Table Cross loadings), it shows the item loadings on their measured constructs. All items are well loaded on their constructs that is their own (on their measured construct) loadings (i.e., bolded loadings) which are much higher than the cross-loadings (on other constructs). Thus, this study has showed that each of the reflective latent variables has discriminate validity based on the assessment of cross-loading analysis.

Next, to examine the second assessment of measurement model‘s discriminant validity, the Fornell-Larcker criterion was applied. According to this method, the square root of the AVE values is compared with the latent variable correlations (Fornell & Larcker, 1981). Generally, the square root of each reflective construct‘s AVE should be greater than its highest correlation with any other construct. The logic behind this method is based on the idea that a construct shares more variance with its associated indicators than with any other latent constructs of the model (Hair et al., 2014a). From the results, all square roots of AVE exceeded the off-diagonal elements in their corresponding row and column. The bolded elements in Table 4.3 and Table 4.4 represent the square roots of the AVE and non-bolded values represent the inter-correlation value between constructs for both first-order and second-order measurements.

Based on the results presented in Table 4.4, all square roots of AVEs (bolded) were larger than inter-constructs correlations, indicating that the variance explained by the respective construct is larger than the measurement error variance (Fornell & Bookstein, 1982). Hence, this result confirmed that Fornell and Larcker‘s criterion was met. Therefore, all the latent constructs of this study have their discriminant validity using both methods.

Table 4.3
Measurement Model: Discriminant Validity (Loadings and Cross Loadings)

	CE_ INNO	CE_ RT	CE_ PRO	JP_ TP	JP_ CP	KM_ KI	KM_ KC	PSM_ PM	PSM_ PI	PSM_ COM	PSM_ SI	OC_ AFF	OC_ CONT	OC_ NORM
CE1	**0.725**	0.058	0.368	0.382	0.407	0.381	0.341	0.189	0.352	0.320	0.341	0.257	0.139	0.226
CE2	**0.815**	0.045	0.492	0.442	0.493	0.415	0.415	0.230	0.396	0.412	0.418	0.385	0.208	0.325
CE3	**0.786**	0.076	0.455	0.390	0.461	0.361	0.348	0.166	0.353	0.349	0.381	0.322	0.176	0.306
CE4	**0.703**	0.120	0.314	0.291	0.322	0.210	0.307	0.243	0.211	0.352	0.268	0.224	0.172	0.208
CE5	**0.764**	0.066	0.419	0.346	0.378	0.245	0.350	0.193	0.271	0.309	0.327	0.227	0.135	0.224
CE6	**0.787**	0.104	0.510	0.459	0.504	0.366	0.437	0.254	0.372	0.338	0.378	0.362	0.178	0.351
CE9	0.029	**0.556**	-0.032	-0.002	-0.063	-0.056	0.033	0.141	-0.020	0.061	0.019	0.073	0.273	0.103
CE10	0.036	**0.694**	0.087	0.085	0.042	-0.015	0.094	0.177	0.022	0.091	0.060	0.093	0.268	0.153
CE11	-0.065	**0.601**	0.000	0.025	-0.036	-0.029	0.076	0.127	-0.012	-0.013	-0.027	0.004	0.243	0.034
CE12	0.110	**0.929**	0.197	0.128	0.116	0.071	0.183	0.172	0.142	0.111	0.120	0.173	0.187	0.170
CE13	0.391	0.216	**0.672**	0.303	0.339	0.216	0.293	0.279	0.242	0.230	0.312	0.294	0.145	0.234
CE14	0.431	0.074	**0.759**	0.396	0.436	0.337	0.350	0.195	0.417	0.315	0.343	0.309	0.173	0.282
CE15	0.374	0.093	**0.758**	0.399	0.427	0.286	0.317	0.145	0.397	0.363	0.377	0.316	0.169	0.275
CE16	0.358	0.112	**0.749**	0.308	0.389	0.215	0.277	0.157	0.382	0.339	0.361	0.272	0.197	0.287
CE17	0.426	0.093	**0.676**	0.449	0.452	0.411	0.365	0.183	0.465	0.344	0.389	0.365	0.196	0.297
CE18	0.452	0.187	**0.703**	0.383	0.404	0.211	0.320	0.271	0.262	0.349	0.355	0.354	0.224	0.305
JP1	0.399	0.107	0.416	**0.819**	0.568	0.403	0.403	0.205	0.378	0.330	0.371	0.412	0.233	0.368
JP2	0.403	0.066	0.431	**0.814**	0.572	0.417	0.394	0.174	0.378	0.333	0.362	0.417	0.258	0.371
JP3	0.408	0.034	0.438	**0.791**	0.594	0.372	0.392	0.189	0.386	0.375	0.392	0.377	0.273	0.372
JP4	0.393	0.132	0.366	**0.750**	0.553	0.278	0.362	0.154	0.275	0.312	0.324	0.365	0.330	0.397
JP5	0.364	0.160	0.360	**0.698**	0.577	0.206	0.303	0.177	0.286	0.316	0.319	0.353	0.293	0.342

Table 4.3
(continued)

	CE_ INNO	CE_ RT	CE_ PRO	JP_ TP	JP_ CP	KM_ KI	KM_ KC	PSM_ PM	PSM_ PI	PSM_ COM	PSM_ SI	OC_ AFF	OC_ CONT	OC_ NORM
JP7	0.289	0.122	0.292	0.528	**0.580**	0.241	0.308	0.154	0.261	0.311	0.292	0.312	0.270	0.309
JP8	0.426	0.051	0.436	0.598	**0.789**	0.342	0.381	0.175	0.411	0.391	0.417	0.438	0.293	0.399
JP9	0.444	0.084	0.456	0.617	**0.844**	0.451	0.411	0.180	0.432	0.375	0.422	0.446	0.301	0.401
JP10	0.427	0.054	0.457	0.610	**0.819**	0.465	0.392	0.157	0.455	0.347	0.418	0.425	0.265	0.379
JP11	0.546	0.084	0.503	0.579	**0.787**	0.386	0.413	0.232	0.388	0.422	0.453	0.473	0.303	0.415
JP12	0.426	0.088	0.444	0.558	**0.805**	0.369	0.394	0.166	0.433	0.323	0.432	0.440	0.298	0.405
JP13	0.504	0.044	0.474	0.578	**0.814**	0.390	0.411	0.233	0.407	0.386	0.472	0.474	0.276	0.421
JP14	0.401	0.095	0.421	0.492	**0.709**	0.330	0.409	0.163	0.423	0.360	0.411	0.384	0.298	0.386
KM1	0.377	-0.020	0.322	0.389	0.440	**0.855**	0.414	0.122	0.324	0.225	0.278	0.308	0.162	0.260
KM2	0.408	0.102	0.385	0.401	0.442	**0.893**	0.448	0.164	0.392	0.320	0.327	0.347	0.206	0.307
KM3	0.293	0.020	0.251	0.287	0.321	**0.740**	0.301	0.054	0.260	0.212	0.181	0.286	0.214	0.253
KM6	0.376	0.049	0.356	0.424	0.425	0.429	**0.665**	0.213	0.330	0.267	0.307	0.357	0.136	0.258
KM7	0.377	0.179	0.340	0.339	0.385	0.305	**0.830**	0.238	0.220	0.260	0.271	0.342	0.220	0.343
KM8	0.362	0.202	0.351	0.345	0.367	0.297	**0.832**	0.265	0.236	0.264	0.251	0.351	0.242	0.343
KM9	0.324	0.088	0.281	0.323	0.333	0.384	**0.649**	0.158	0.266	0.228	0.185	0.283	0.203	0.313
PSM1	0.159	0.099	0.197	0.210	0.200	0.138	0.228	**0.750**	0.241	0.215	0.233	0.263	0.093	0.174
PSM2	0.222	0.172	0.232	0.212	0.212	0.126	0.247	**0.801**	0.272	0.300	0.270	0.267	0.163	0.255
PSM3	0.243	0.194	0.206	0.084	0.107	0.042	0.178	**0.678**	0.197	0.209	0.219	0.160	0.137	0.156
PSM4	0.380	0.082	0.396	0.278	0.357	0.228	0.246	0.312	**0.700**	0.423	0.415	0.267	0.080	0.197
PSM5	0.348	0.100	0.412	0.378	0.438	0.338	0.279	0.244	**0.845**	0.429	0.469	0.321	0.197	0.272
PSM6	0.356	0.049	0.408	0.359	0.456	0.365	0.313	0.253	**0.866**	0.495	0.493	0.325	0.143	0.283
PSM7	0.365	0.100	0.446	0.422	0.464	0.383	0.354	0.270	**0.856**	0.556	0.558	0.371	0.206	0.335

Table 4.3
(continued)

	CE_ INNO	CE_ RT	CE_ PRO	JP_ TP	JP_ CP	KM_KI	KM_ KC	PSM_ PM	PSM_PI	PSM_ COM	PSM_SI	OC_ AFF	OC_ CONT	OC_ NORM
PSM8	0.210	0.129	0.270	0.253	0.292	0.187	0.133	0.157	0.584	0.332	0.391	0.217	0.202	0.154
PSM10	0.363	0.114	0.342	0.285	0.363	0.206	0.258	0.260	0.415	**0.704**	0.460	0.344	0.278	0.304
PSM12	0.348	0.039	0.390	0.378	0.396	0.308	0.304	0.245	0.426	**0.736**	0.512	0.348	0.234	0.306
PSM13	0.298	0.133	0.299	0.315	0.318	0.258	0.227	0.259	0.419	**0.728**	0.495	0.281	0.220	0.230
PSM15	0.370	0.069	0.356	0.361	0.397	0.215	0.311	0.240	0.512	**0.795**	0.542	0.367	0.263	0.317
PSM16	0.309	0.109	0.287	0.257	0.280	0.153	0.167	0.221	0.388	**0.753**	0.548	0.279	0.203	0.247
PSM17	0.273	0.116	0.344	0.311	0.360	0.222	0.211	0.211	0.409	0.523	**0.668**	0.315	0.246	0.279
PSM19	0.345	0.033	0.291	0.325	0.382	0.257	0.230	0.277	0.470	0.560	**0.751**	0.343	0.210	0.313
PSM20	0.410	0.114	0.387	0.399	0.464	0.299	0.283	0.239	0.504	0.551	**0.824**	0.386	0.264	0.345
PSM21	0.342	0.067	0.384	0.365	0.414	0.245	0.257	0.217	0.491	0.534	**0.758**	0.352	0.226	0.333
PSM22	0.439	0.106	0.453	0.422	0.488	0.296	0.351	0.293	0.524	0.576	**0.835**	0.383	0.262	0.364
PSM23	0.326	0.084	0.370	0.266	0.351	0.167	0.207	0.260	0.382	0.484	**0.737**	0.279	0.222	0.259
PSM24	0.280	0.089	0.372	0.289	0.358	0.182	0.237	0.203	0.361	0.366	**0.663**	0.293	0.207	0.258
OC10	0.330	0.127	0.356	0.442	0.458	0.343	0.400	0.275	0.309	0.358	0.363	**0.822**	0.414	0.638
OC14	0.310	0.177	0.353	0.360	0.424	0.272	0.307	0.250	0.285	0.338	0.348	**0.834**	0.501	0.642
OC16	0.339	0.122	0.393	0.438	0.493	0.327	0.409	0.253	0.382	0.390	0.411	**0.835**	0.441	0.608
OC2	0.225	0.197	0.252	0.343	0.321	0.222	0.276	0.173	0.219	0.288	0.286	0.408	**0.714**	0.465
OC5	0.204	0.182	0.185	0.268	0.306	0.166	0.202	0.134	0.139	0.284	0.266	0.392	**0.804**	0.469
OC12	0.071	0.217	0.146	0.200	0.218	0.137	0.133	0.096	0.126	0.160	0.157	0.443	**0.759**	0.400
OC3	0.288	0.174	0.309	0.395	0.438	0.293	0.339	0.206	0.282	0.307	0.338	0.593	0.524	**0.826**
OC9	0.320	0.159	0.311	0.381	0.398	0.254	0.328	0.218	0.240	0.335	0.366	0.622	0.511	**0.843**
OC15	0.301	0.154	0.356	0.420	0.431	0.279	0.388	0.247	0.300	0.304	0.331	0.686	0.435	**0.839**

Note: Bolded values are loadings for items that are above the recommend value of 0.5.

Table 4.4

Measurement Model: Discriminant Validity (Fornell-Larcker Criterion) of First-Order Constructs

Construct	CE_ INNO	CE_ PRO	CE_ RT	JP_ CP	JP_ TP	KM_ KC	KM_ KI	OC_ AFF	OC_ CONT	OC_ NORM	PSM_ COM	PSM_ PI	PSM_ PM	PSM_ SI
CE_ INNO	**0.764**													
CE_ PRO	0.564	**0.720**												
CE_RT	0.101	0.178	**0.710**											
JP_CP	0.564	0.567	0.098	**0.773**										
JP_TP	0.508	0.519	0.127	0.739	**0.776**									
KM_KC	0.482	0.446	0.175	0.506	0.479	**0.749**								
KM_KI	0.436	0.389	0.044	0.486	0.436	0.472	**0.832**							
OC_ AFF	0.393	0.442	0.172	0.552	0.497	0.447	0.378	**0.830**						
OC_ CONT	0.221	0.256	0.261	0.372	0.356	0.269	0.231	0.545	**0.760**					
OC_ NORM	0.362	0.390	0.194	0.505	0.477	0.421	0.329	0.759	0.586	**0.836**				
PSM_ COM	0.454	0.450	0.124	0.472	0.430	0.342	0.306	0.436	0.322	0.378	**0.744**			
PSM_ PI	0.431	0.502	0.115	0.523	0.441	0.351	0.396	0.391	0.212	0.328	0.582	**0.778**		
PSM_ PM	0.277	0.284	0.206	0.237	0.232	0.295	0.141	0.313	0.177	0.267	0.329	0.320	**0.745**	
PSM_ SI	0.465	0.495	0.116	0.539	0.457	0.341	0.322	0.450	0.312	0.413	0.689	0.603	0.325	**0.751**

Note: Diagonals (bolded values) represents the square root of the AVE shared between the constructs and their measures. The off-diagonals values represent the correlations among constructs.

4.4.1.5 Collinearity and Significance Assessment of Formative Models

Since the CE and PSM were operationalized as formative of the second-order construct, internal consistency, AVE and correlations, composite reliability, loadings versus cross-loadings did not apply as the formative items are viewed as multidimensional and are not similar measures (in a convergent validity sense) reflecting the same underlying construct (Chin, 2010). As mentioned earlier, the measurement model for the formative construct has a certain criteria for the assessment. For the formative indicators, the outer weight and significance, as well as collinearity among indicators were determined (Hair et al., 2014a; Wong, 2013). The significance of item weights specifies that an indicator clarifies a significant portion of the variance in the formative construct. Meanwhile, the collinearity is obtained by considering the degree of multicollinearity among the formative measurement (Diamantopoulos & Winkhofer, 2001), whereby the examination of the variance inflation factor (VIF) or the tolerance values of 0.20 or lower and VIF value of 5 and higher respectively indicate a potential collinearity problem (Hair et al., 2011).

The variance inflation factor (VIF) statistics was applied to examine if the formative indicators are highly correlated. As a rule of thumb, multicollinearity is of concern if the VIF is higher than 5 (Hair et al., 2014a). In contrast, Diamantopouls and Siguaw (2006) stated that if the VIF values greater than 3.3, it is specified as having high multicollinearity. Hence, Table 4.6 portrays that the weights for the formative constructs of CE and PSM were significant with their associated t-values. Additionally, the VIF values for the formative indicators of innovativeness, risk-taking, proactiveness, policy-making, public interest, compassion, and self-sacrifice were below the threshold of 3.3. Therefore, the VIF for the constructs specified none of multicollinearity appearance. Thus, there was no issue about collinearity for the estimation of the PLS path model for this study (Hair et al., 2014a).

In this study, corporate entrepreneurship (CE) of second order construct has been identified as formative measurement. Formative measurement refers to the assumption that the indicators cause the construct (Hair et al., 2014a). Hence, this type of measurement model is referred to as being formative index. One of the important characteristic about formative indicators is that they are not interchangeable, as it is true with reflective indicators. Therefore each indicator for a formative construct captures a specific aspect of the construct‘s domain.

There is no definite answer to fix whether constructs are reflective or formative. Indeed, the specification depends on the construct conceptualization and the objective of the study. The decision of whether to measure a construct reflectively or formatively is not clear-cut. The decision which measurement model is applicable has been the subject matter of considerable debate in several disciplines and not fully resolved (Hair et al., 2014a).

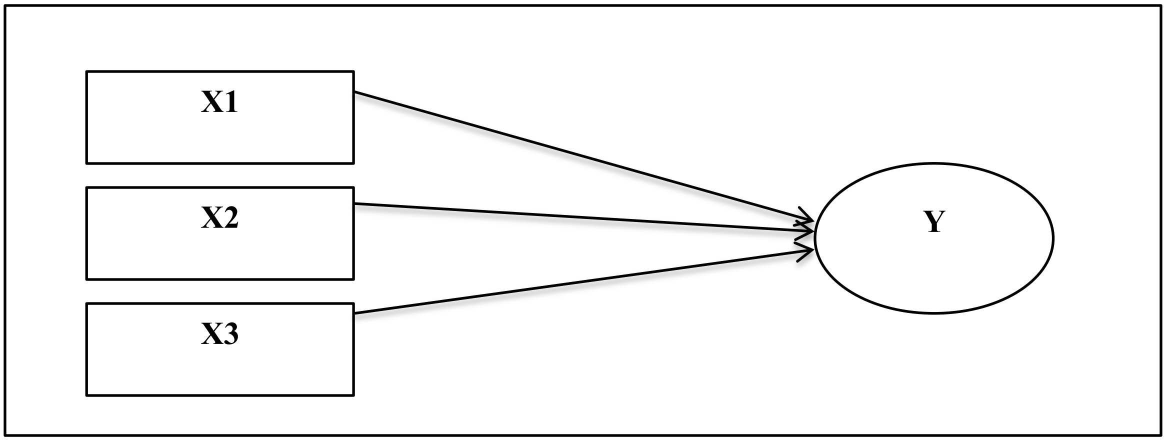

Figure 4.5
Formative Measurement Model
Source: Hair et al., (2014a)

For the corporate entrepreneurship (CE) measurement, previous studies mentioned that second-order and third-order construct are considered to be formative (Freiling & Schelhowe, 2014). This have been supported by Agarwal and Karahanna (2000) and Edwards (2001) whereby the scores of all dimensions were used in a second measurement model as formative indicators of the entrepreneurial orientation construct.

Past studies investigated the dimensions of public service motivation (PSM) which represent different aspects of PSM; whereby each dimension captures a distinct and potentially unique form of PSM. These dimensions may have different antecedents and consequences as a different characteristics and theoretical backgrounds (Moynihan & Pandey, 2007; Pandey & Stazyk, 2008; Perry, 1996, 1997, 2000; Perry & Wise, 1990; Perry & Vandenabeele, 2008; Taylor, 2007; Vandenabeele, 2007, 2008, 2009). Hence, PSM is a formative construct due to the reason that it can be defined as a linear sum of its dimensions (Kim & Vanenabeele, 2010). Based on a review by Kim (in press), the results show that PSM is an aggregate construct, and the empirical testing also illustrates that the formative model has more desirable statistical properties than reflective model. In other words, the dimensions of PSM combine to produce PSM and so it is defined as a linear sum of its dimension.

Table 4.5
Measurement Model: VIF and Indicators Significance Testing Result

Second Order Construct	Scale Type	Item	Weights	Tolerance	VIF	T-Value
Corporate Entrepreneurship	Formative	Innovativeness	0.589	.697	1.435	31.584
		Risk Taking	0.055	.993	1.007	2.532
		Proactiveness	0.530	.693	1.443	29.392
Public Service Motivation	Formative	Policy making	0.099	.863	1.159	9.870
		Public interest	0.330	.581	1.720	29.572
		Compassion	0.304	.484	2.064	30.084
		Self-sacrifice	0.467	.465	2.149	37.742

$p<0.01$

As can be seen from Table 4.5, the VIF values of all indicators (i.e., second order construct) of the formative construct (i.e. CE and PSM) were below the critical value of 5. This indicates that there is no collinearity between indicators. Indeed, the outer weights values of innovativeness, risk-taking, proactiveness, policy-making, public interest, compassion, and self-sacrifice indicated enough evidences of the relative contributions to the main construct.

Having an established measurement model with the evidences of adequate reliability and validity of the reflective and formative (second order construct) indicators and constructs, this study was therefore reliable and valid for further analyses.

4.4.1.6 The Establishment of the Second-Order Approach

Corporate entrepreneurship (CE) was proposed as a second-order formative constructs with first three factors. The three first factors; Innovativeness, Proactiveness, and Risk-Taking were measured by reflective indicators. In Table 4.3, the results of composite reliability greater than 0.8 indicate the measurement are reliable. All factor loadings are 0.5 on their respective factors and significant, which provides supports for convergent validity. Moreover, AVE scores of the three first-order constructs are above 0.5 and the square roots of AVEs are greater than inter-construct correlation in Table 4.3, thus supporting discriminant validity of this measure. Corporate entrepreneurship (CE) as a second-order formative construct, were measuring first-order factors. The correlations among first-order factors of CE were not high enough (from 0.005 to 0.589 in Table 4.3). Therefore, a formative factor model was considered appropriate, and the second-order formative model was favored for its accuracy and parsimony in representing distinct dimensions of the construct CE.

Next is public service motivation (PSM) as a second-order formative construct consisting of four first-order factors. This careful consideration of the relationships between PSM and its dimensions show that PSM is formative in nature based from varies scholar views (Perry, 1996; Perry, 1997; Taylor, 2007; Moynihan & Pandey, 2007). Perry (1996) mentioned that each dimension represents different aspect of PSM, whereby each dimension captures a distinct and potentially unique form of PSM. The more reasonable definition of PSM as a formative constructs has been strong justified by Wright (2008, p. 85) which stated that ―Researchers should consider operationalizing this four-dimension conceptualization as first-order reflective and second-order formative." Since an individual‘s PSM is determined by the individual‘s attraction to public participation, commitment to public values, compassion, and self-sacrifice, the items reflecting each dimension may be interchangeable by providing a unique contribution to an individual‘s PSM. Thus, it is a must to include all first-order dimensions that form PSM in the study because omitting one may alter the meaning of PSM (Kim & Vandenabeele, 2009). Furthermore, Kim and Vandenabeele (2009) also proposed that the dimensions of PSM construct should be refined, and developed more appropriate items for better discriminant validity for future research. Thus, the second-order construct measured the first-order factors. As shown in Table 4.3, the results indicated that all factor loadings on their respective factors were significant and above 0.5, supporting the convergent validity of the measurement. However the correlations among first-order factors of PSM were not high enough (from 0.009 to 0.467 in Table 4.3). Hence, a second-order formative model was more appropriate for this measurement model.

Knowledge management (KM) was also conducted as a second-order constructs with its two key component factors; namely knowledge internalization and knowledge creation (Lee et al., 2005). In order to conceptualize the KM construct and its dimensions, Wang, Ahmed and Rafiq (2008) validated KM as a second-order construct using data from 213

United Kingdom firms. Later, they tested whether KMO had a direct effect on firm performance since KM had been cited as an antecedent to firm performance (Lee et al., 2005). Previous studies have also applied KM as a second-order constructs such Knowledge Management Assessment Instruments (KMAI) by Lawson, (2003), Roman-Velazquez (2004), Kangas (2009) and Chin-Loy and Mujtaba (2011).

Meanwhile, Organizational commitment (OC), as an individual‘s organizational identification and involvement, was measured using a scale developed by Mowday, Steers, and Porter (1979). Due to the established measure, “OC has been specified as a second-order construct as suggested by Gerbing, Hamilton and Freeman” (1994, p. 574). Lastly, job performance was proposed as a second-order constructs based on the past studies conducted by Allen et al., (2004); Cho and Oh, (2015); Mackenzie, Podsakoff & Jarvis (2005); William & Anderson, (1991); Van Dyne et al., (1995) and Werner, (1994).

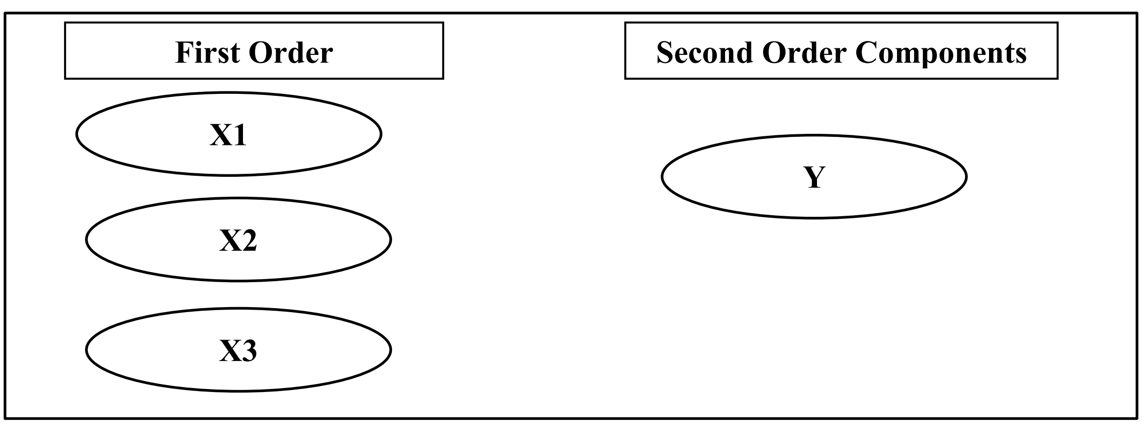

Figure 4.6
Example of First and Second Order Components
Source: Hair et al., (2014a)

Table 4.6 illustrates the AVE values of constructs job performance (JP), knowledge management (KM) and organizational commitment (OC) whereby the square root of each construct‘s AVE was larger than its correlation with other constructs. These results indicate that each constructs‘ criteria was met.

Table 4.6
Fornell-Larcker Criterion Analysis for Checking Discriminant Validity of Second-Order Constructs of JP, KM, and OC

	CE	**JP**	**KM**	**OC**	**PSM**
CE	**NA**				
JP	0.670	**0.916**			
KM	0.584	0.622	**0.857**		
OC	0.467	0.680	0.476	**0.868**	
PSM	0.617	0.624	0.467	0.499	**NA**

Note: CE- Corporate Entrepreneurship; JP- Job Performance; KM- Knowledge Management; OC- Organizational Commitment; PSM- Public Service Motivation.

Note: Diagonals (bolded values) represents the square root of the AVE shared between the constructs and their measures. The off-diagonals values represent the correlations among constructs.

Table 4.7 demonstrates the second-order of corporate entrepreneurship (CE), knowledge management (KM), public service motivation (PSM), organizational commitment (OC) and job performance (JP) constructs and its relationships with first – order constructs.

Table 4.7
Second-Order of CE, KM, PSM, OC, and JP Constructs and Its Relationships with First-Order Constructs

2nd Order Constructs	**1st Order Constructs**	**R²**	**Beta**	**t-value**
Reflective Knowledge Management				
	Knowledge Internalization	0.761	0.873	66.647**
	Knowledge Creation	0.709	0.842	85.501**
Organizational Commitment				
	Affiliation	0.817	0.904	111.562**
	Continuance	0.602	0.776	32.016**
	Normative	0.842	0.918	132.812**
Job Performance				
	Task Performance	0.781	0.884	91.8**
	Contextual Performance	0.898	0.948	224.591**
		R²	**Weight**	**t-value**
Formative Corporate Entrepreneurship		1.000		
	Innovation		0.589	31.002**
	Risk Taking		0.055	2.458**
	Pro-activeness		0.53	29.099**
Public Service Motivation		1.000		
	Policy Making		0.208	9.859**
	Public Interest		0.33	28.832**
	Compassion		0.304	29.497**
	Self-Sacrifice		0.467	39.871**

p<0.01**; p<0.05*

Having an established measurement model with the evidence of adequate reliability and validity of the reflective and formative (second order construct) indicators and constructs, this study therefore achieved reliability and validity for further analyses.

4.4.2 Assessment of the Structural Model

This section presents the structural equation model of the data analysis. Generally, the number of bootstrapping subsamples was set at 1000 with 682 bootstrap cases in the data set and a no sign change to assess the significance of the path coefficients of direct, mediating and moderating relationships (Hair et al., 2014a; Henseler et al., 2009). As the objectives of this study were to empirically examine the direct relationships between independent variables (IVs) and dependent variable (DV), as well the mediating effect of PSMs between those IVs and the DV and the moderating effect of OCs between those IVs and the DV, three (3) different structural models were assessed. For the first model, the direct relationships between knowledge management and job performance and corporate entrepreneurship and job performance were analyzed. Next, the second model examined the mediating relationships between knowledge management and job performance mediated by public service motivation and corporate entrepreneurship and job performance mediated by public service motivation. The third model assessed the moderating relationships between knowledge management and job performance moderated by organizational commitment and between corporate entrepreneurship and job performance moderated by organizational commitment respectively.

4.4.2.1 Hypotheses Testing for Direct Relationships

In Figure 4.7, the first model specifically analyzed direct and mediating relationships. Two hypotheses on the direct relationship were tested; H1: There is significant relationship between knowledge management and job performance; and H2: There is significant relationship between corporate entrepreneurship and job performance. The results of the structural model based on the direct relationships between the predictors and criterion variables of this study are illustrated in Table 4.9 below. The results were interpreted based on the coefficients (Std. Beta) for the path relationship, the standard error (SE), and t-value (T Statistics). The * or ** sign represents the significance level based on the alpha value. The popular critical (theoretical) t values for two-tailed test are 1.65 (<0.10), 1.96 (<0.05), or 2.57 (<0.01)" (Hair et al., 2014a, p. 186).

Table 4.8
Structural Model: Test of Significance for Direct Relationships

Hypothesis	**Relationship**	**Std. Beta**	**Std. Error**	**t-value**	**Decision**
H1	**KM -> JP**	0.209	0.032	6.451**	Supported
H2	**CE -> JP**	0.260	0.035	7.368**	Supported

**p<0.01, *p<0.05 (n=682)

Based on the results presented in Table 4.9, the statistical analysis has ascertained that knowledge management is significantly related to job performance (ß=0.209, t=6.451, p<0.01) and that corporate entrepreneurship is significantly related to job performance (ß=0.260, t=7.368, p<0.01). Therefore both the hypotheses (H1 & H2) on the direct relationships between latent exogenous and endogenous constructs in the model were supported.

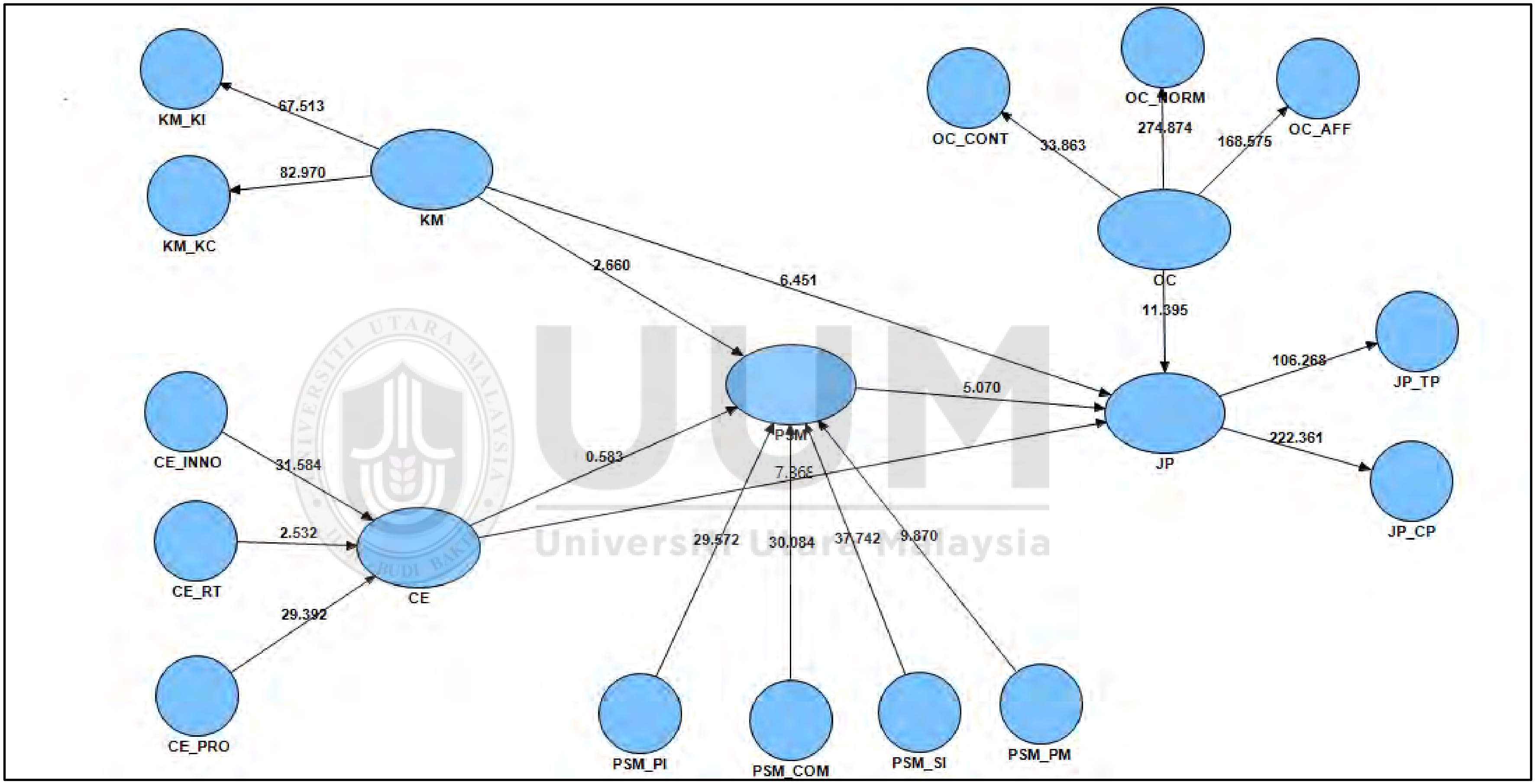

Figure 4.7
PLS Algorithm (Direct Relationships)
Note: KM- Knowledge Management; CE- Corporate Entrepreneurship; PSM- Public Service Motivation; OC- Organizational Commitment; JP- Job Performance.

4.4.2.2 Hypotheses Testing for Mediating Relationships

Public service motivation was formally hypothesized to be mediator in the relationship between knowledge management and job performance constructs and between corporate entrepreneurship and job performance (refer to Hypothesis 3 & Hypothesis 4). A model comparison analysis was conducted to test the proposed mediating effect of public service motivation. To ease in the calculations, the research model was labeled as follows (Figure 4.8);

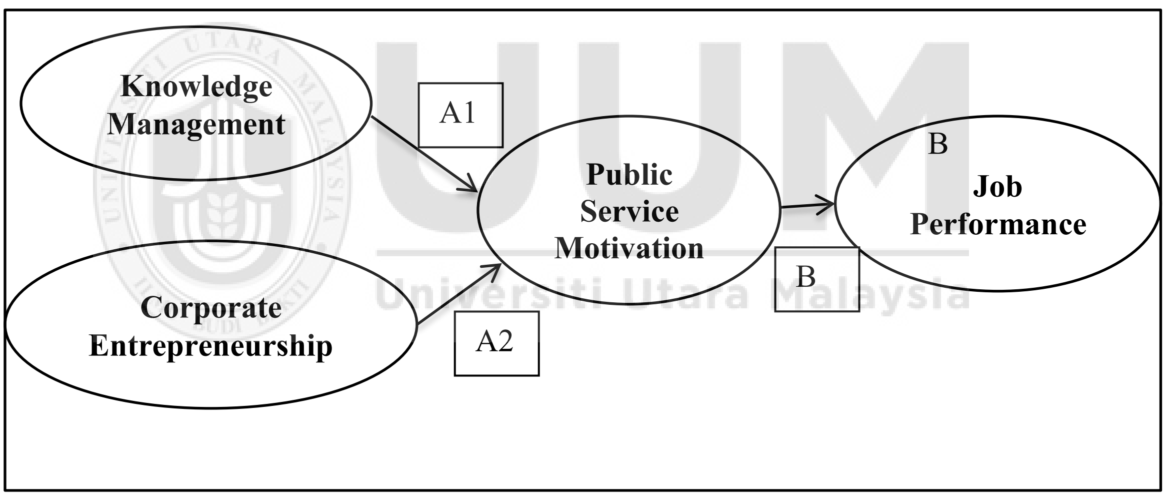

Figure 4.8
Research Model with Mediator Variable

Mediator specifies how (or the mechanism by which) a given effect occurs (Baron & Kenny, 1986; James & Brett, 1984). Baron and Kenny (1986) described a mediator variable as:

> *"The generative mechanism through which the focal independent variable is able to influence the dependent variable of interest… (and) Mediation…is best done in the case of a strong relation between the predictor and criterion variable (pp. 1173-1178)".*

Moreover, Sekaran and Bougie (2013) defined mediating variable as “one surfaces between the tie the independent variables start operating to influence the dependent variable and the time their impact is felt on it” (p. 75). There is a time-based quality or time dimension to the mediating variable. In other words, carrying a mediating variable into play facilitates the researcher to paradigm a process. The mediating variable overlays as a role to the independent variable(s) performing in any situation, and assists to conceptualize and describe the influence of the independent(s) on the dependent variable.

Mediator is also known as an “intermediate variable” (Kraemer, Jing, Zhu, Xu, Kerwin & Tureck, 2001), or “explanatory link” (Rose, Holmbeck, Coakley & Franks, 2004). Mediators are also considered to have “mediating effects” which are otherwise labelled “indirect effects”, “surrogate effects”, “intermediate effects” and/or “intervening effects”(MacKinnon, Lockwood, Hoffman, West & Sheets, 2002; Wu & Zumbo, 2007).

Henseler et al., (2009) mentioned assessing the direct and indirect relationships between exogenous and endogenous latent variable as another important evaluation of a structural model in the study. Both direct and indirect effects can be determined by conducting a mediating or moderating analysis. For this study, the significance of the mediating and moderating relationships was assessed. However, in this section, only the significance of the mediating relationship was examined and reported. Figure 4.9 and Figure 4.10 show the mediation model sequence and the path coefficient in mediation.

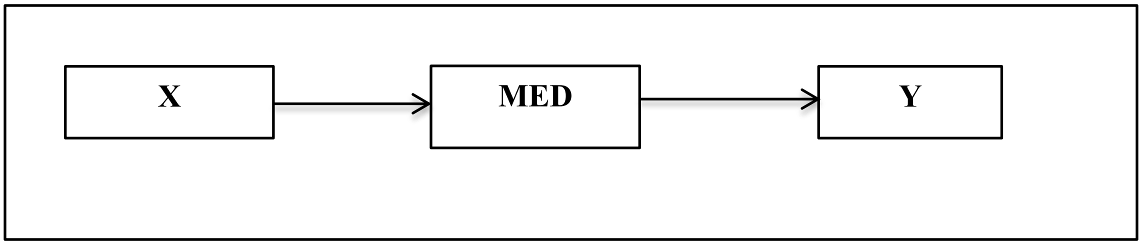

Figure 4.9
A Mediation Model Sequence

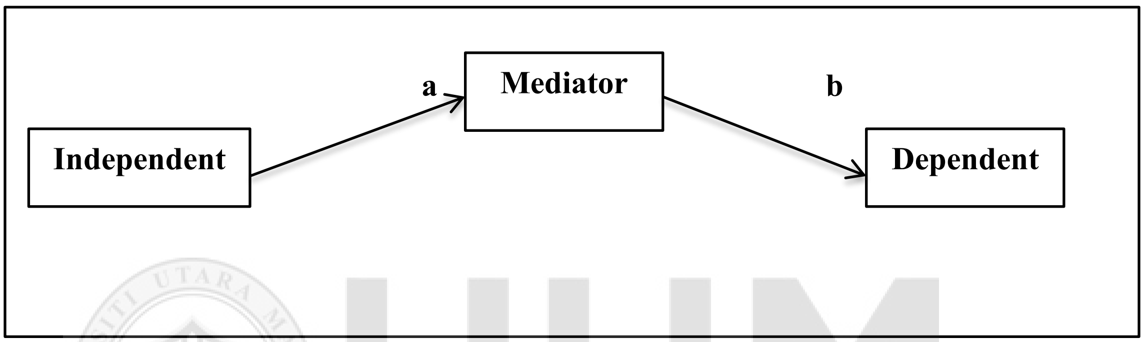

Figure 4.10
The Path Coefficient in Mediation

Preacher and Hayes (2004, 2008) have criticized the *"causal procedure"* of Baron and Kenny (1986). They argued that path coefficient ―a" and path coefficient ―b" can be normally distributed but the product i.e. a*b will not be normally distributed. As such the Sobel test online which is based on normal distribution cannot be utilized as it will lead to wrong conclusion since the indirect effect is not normally distributed and this will affect the ―standard errors". Therefore, to correct this situation, they introduced a new method called *"*bootstrapping the indirect effect*"*.

Bootstrapping, a nonparametric resampling procedure, has been recognized as one of the more rigorous and powerful methods for testing the mediating effect (Hayes, 2009;

Shrout & Bolger, 2002; Zhao, Lynch & Chen, 2010). The application of bootstrapping for mediation analysis has recently been advocated by Hair et al., (2013) who noted that:

> *"when testing mediating effects, researchers should rather follow Preacher and Hayes (2004, 2008) and bootstrap the sampling distribution of the indirect effect, which works for simple and multiple mediator models"* (p. 223).

As can been seen in Figure 4.11, the same model specifically analyzed the relationships represented by the following hypotheses; H3; Public service motivation mediates the relationship between knowledge management job performance; and H4: Public service motivation mediates the relationship between corporate entrepreneurship and job performance.

For the purpose of this present study, the researcher referred to the general recommendations given by Preacher and Hayes (2004, 2008) and specific suggestions for the PLS-SEM mediation analysis by Hair et al., (2014a); Helm, Eggert and Garnefeld (2010) in order to analyze the mediating relationships. It also included the bootstrapping sampling distribution of the indirect effect which work for simple and multiple mediator models (c.f. Preacher & Hayes, 2008), as the approach was perfectly suited for the PLS-SEM (Hair et al., 2014a). Mediating effect occurs if there is a significant direct path relationship between the exogenous and endogenous latent variables and that the mediator construct is included in the PLS path model (Hair et al., 2014a).

The direct relationships between all IVs and DV were assessed in the previous model (structural model with direct relationships in Table 4.9). The test of the significance path a (the association between all the independent variables with the mediator) and path b (the relationship between the mediator and the dependent variable) was then conducted. Two (2) indirect effects were created by taking the products of A1*b and A2*b. The mediating effects of PSM between all IVs and DV were analyzed grounded on the bootstrapping indirect effects results of the path coefficients (refer to Table 4.10 and Table 4.11). The bootstrapped results were obtained, and in this study 1000 for each of the direct relationships. Next, the bootstrapped indirect effects can be created by taking the product of each indirect path, and in this study the two (2) indirect effects created by taking the products of A1*b and A2*b.

The next step is to calculate the Standard Errors (SE) for the two (2) indirect effects. The reason for this is because the SE is needed in the calculation of the t value (Hair et al., 2014a).

Formula for t value:

$$t = \frac{a * b}{S_{error}}$$

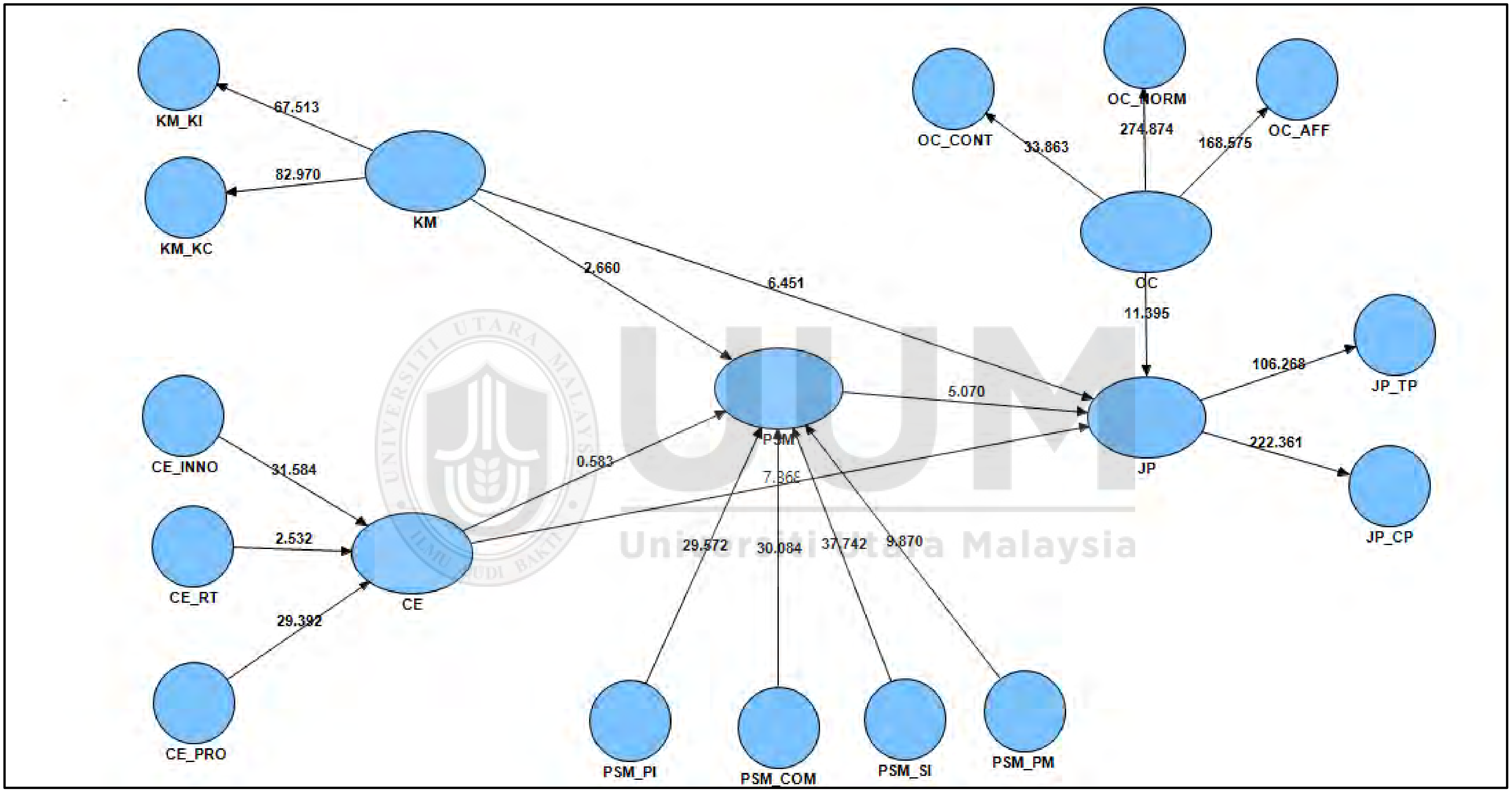

Figure 4.11

Bootstrapping (Mediating Relationships)

Note: KM- Knowledge Management; CE- Corporate Entrepreneurship; PSM- Public Service Motivation; OC- Organizational Commitment; JP- Job Performance.

Table 4.9
Structural Model: Bootstrapping Results for Indirect Effect (n=682)

Path A	Beta	Path B	Beta	Indirect Effect (A*B)	SE	t-values
KM->PSM	0.002	PSM->JP	0.177	0.000354	0.0001298	2.72711
CE->PSM	0	PSM->JP	0.177	0	0.0001068	0

** p<0.01; * p<0.05

Referring to Table 4.9, the mediation effects can be identified based on the provided bootstrapping results for indirect effects. Generally, the standard errors (SE) is assessed from the basis of bootstrapping results of indirect effects (i.e., bootstrapped a*b) while, t-value is assessed as a*b/SE (Hair et al., 2014a).

Table 4.10
Structural Model: Test of Significance for Mediating Relationships

Hypotheses	Relationship	Std. Beta	Std. Error	t-value	Decision
H3	KM-> PSM->JP	0.000354	0.0001298	2.727110321**	Supported
H4	CE -> PSM->JP	0	0.0001068	0	Not Supported

**p<0.01; *p<0.05

Based on the results in Table 4.10, public service motivation (PSM) was found to mediate the relationship between knowledge management and job performance (ß=0.000354; p<0.01) with a t-value of 2.72711. However, the results did not find the mediating role of public service motivation on the relationship between corporate entrepreneurship and job performance.

Table 4.11
Structural Model: Confidence Interval for Mediating Relationships

Hypotheses	Path A	Path B	A*B (Beta)	5% LL	95% UL	Decision
H3	0.002	0.177	0.000354	9.958E-05	0.000608423	Supported
H4	0	0.177	0	-0.000209	0.000209361	Not supported

Note: Hypothesis is supported when there is no zero (i.e. when LL has negative sign and UL has positive sign) between LL and UL (n=682).

As can be seen from Table 4.11, the bootstrapping analysis shows that only one (1) indirect effect was significant with support from Preacher and Hayes (2008); the indirect effect 95% Boot CI: [LL=9.958, UL=0.000608423] did not straddle a 0 between the confidence intervals of the significantly related hypothesis based on the path coefficients and T- value. The supported hypothesis as ilustrated in Table 4.11 was reaffirmed by the confidence interval calculation. Therefore, H3 where PSM acted as mediator in the relationship between knowledge management and job performance was supported, but H4 where PSM was tested as mediator in the relationship between corporate entrepreneurship and job performance was not supported.

4.4.2.3 Hypotheses Testing for Moderating Relationships

Organizational commitment was hypothesized to moderate the relationship between knowledge management and job performance (H5) and the relationship between corporate entrepreneurship and job performance (H6). A moderator variable can be identified as a third variable that changes the relationship between the independent variable and the dependent variable. It is also known as contingent variable. A moderator variable is one that affects the relationship between two variables so that the nature of the impact of the predictor on the criterion varies according to the level or value of the moderator (Holmbeck, 1997). Thus a moderator specifies the conditions under which a given effect occurs as well as the conditions under which the direction (nature) or strength of an effect varies.

Sekaran and Bougie (2013) conceptualized moderator variable as the one which has a strong contingent effect on the relationship between the independent variable and dependent variable. The existence of this third variable (the moderating variable) alters the novel relationship between the independent and dependent variables.

Meanwhile, Baron and Kenny (1986, p. 1174-1178) defined a moderator variable as:

> *"A qualitative (e.g. sex, race, class) or quantitative variable…. that affect the direction and/or strength of a relation between an independent or predictor variable and a dependent or criterion variable…a basic moderator effect can be presented as an interaction between a focal independent variable and a factor (the moderator) that specifies the appropriate conditions for its operation…Moderator variables are typically introduced when there is an unexpectedly weak or inconsistent relation between a predictor and a criterion variable".*

Figure 4.12 shows the second model which specifically analyzed the relationships represented by the following hypotheses; H5 where organizational commitment moderates the relationship between knowledge management job performance, and H6 where organizational commitment moderates the relationship between corporate entrepreneurship and job performance.

The PLS-SEM product indicator approach was applied in this study to detect and estimate the strength of the moderating effect of organizational commitment on the relationship between knowledge management and job performance, and between corporate entrepreneurship and job performance (Chin, Marcolin & Newsted, 2003; Helm et al., 2010; Henseler & Chin, 2010; Henseler & Fassot, 2010). This approach was recommended in order to get a better estimate and in determining the interaction effects involving a predictor and moderator variable (Chin, 1998 & Chin, Marcolin, & Newsted, 2003). In this approach the products of each indicator of the independent latent variable were created with each indicator of the moderator variable. These product indicators become the indicators of the latent interaction term. If the independent latent variable has I indicators and the latent moderator variable has J indicators, then the latent interaction variable will have I*J product indicators" (Chin Marcolin, & Newsted, 1996; 2003 in Henseler & Fassott, 2010, p. 723). Figure 4.12 presents a structural model of organizational commitment as moderator in the product indicator approach.

Joreskog and Wang (1996) confirmed that one product indicator is enough to assess the moderating effect. In contrast, Jonsson (1998) applied numerous but not all product terms to obtain a better estimation of the interaction term's standard error. In PLS path modeling, statistical inferences are usually based on bootstrap outcomes of the parameters estimates. As it is the variation of parameter estimates across bootstrap samples that determine the range of the confidence interval of a parameter, the correct estimation of the interaction term's path coefficient should be prioritized against the estimation of its standard error (Henseler & Fassott, 2010). To test for the the moderating effect, the moderator indicator; organizational commitment (OC) was multiplied with the predictor indicator; job performance (JP) in order to develop interaction latent variables that predicted each of KM and CE.

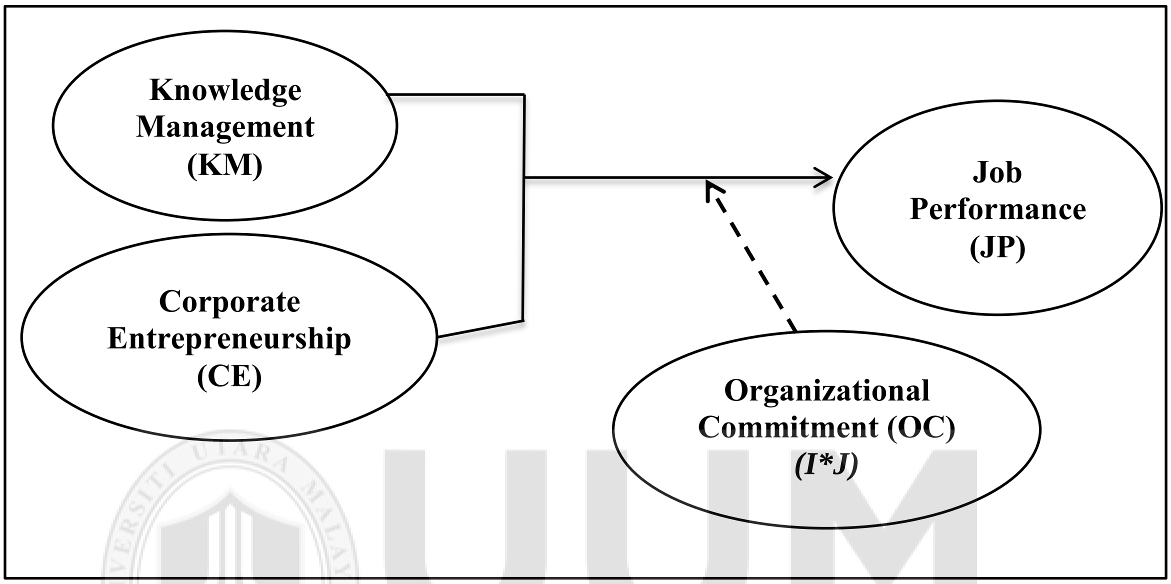

Figure 4.12
Organizational Commitment as Moderator

Table 4.12
Structural Model: Bootstrapping Results for Moderating Relationships

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	Decision
H5	**KM * OC -> JP**	-0.008	0.048	0.170*	Not Supported
H6	**CE * OC -> JP**	0.034	0.070	0.486*	Not Supported

**P<0.01, *P<0.05

Table 4.12 shows the interaction between CE*OC and KM*OC was found to be negative. The results did not support Hypothesis 5, which posited that organizational commitment moderates the relationship between knowledge management and job performance (ß = -0.008, t = 0.170, $p > 0.10$). Likewise, Hypothesis 6, which predicted an interaction between corporate entrepreneurship and job performance with regard to their effect on the organizational commitment was also not supported (ß=0.034, t=0.486, $p>0.10$). Thus, hypothesis 5 and hypothesis 6 were not supported in this study.

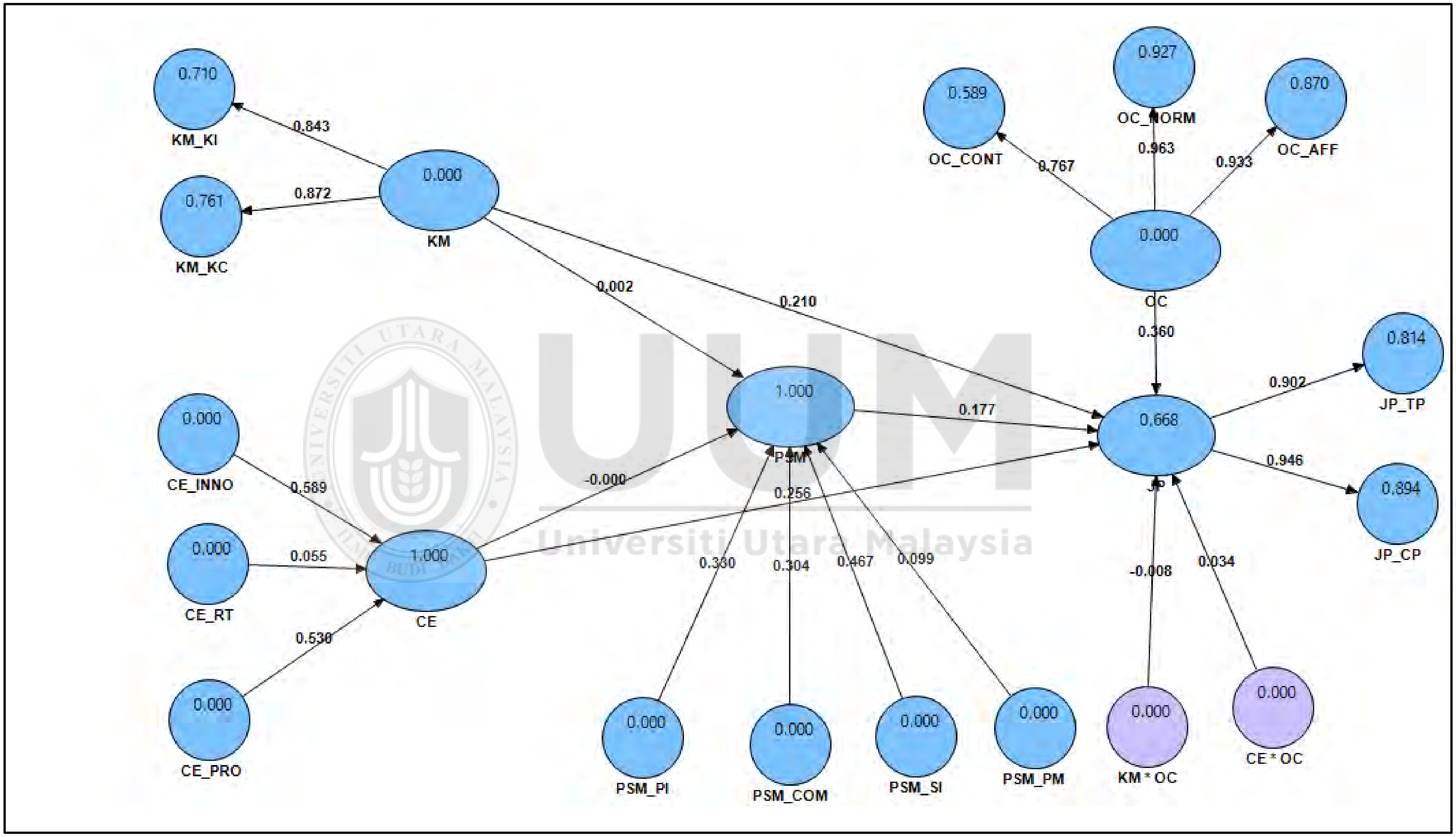

Figure 4.13

Bootstrapping (Moderating Relationships)

Note: KM- Knowledge Management; CE- Corporate Entrepreneurship; PSM- Public Service Motivation; OC- Organizational Commitment; JP- Job Performance.

4.4.2.4 Assessment of Variance Explained in the Endogenous Latent Variables

Another important criterion for assessing the structural model in PLS-SEM is the R-squared value, which is also known as the coefficient of determination (Hair et al., 2011, Hair et al., 2012; Henseler et al., 2009). The R-squared value represents the exogenous latent variables' combined effects on the endogenous latent variable. Due to the coefficient is squared correlation of actual and predicted values, it also represents the amount of variance in the endogenous constructs explained by all the exogenous constructs linked to it. The **R^2 value** ranges from 0 to 1 with higher levels indicating higher levels of predictive accuracy. Even though the acceptable level of R^2 value depends on the research discipline (Hair et al., 2014a), Falk and Miller (1992) proposed R-squares value of 0.10 as a minimum acceptable level. Chin (1998) suggested that the R-squared values of 0.67, 0.33 and 0.19 in PLS-SEM can be considered as substantial, moderate and weak, respectively. Table 4.13 illustrates the R-squared values of the one endogenous latent variable.

Table 4.13
Coefficient of Determination for Direct Relationships: R-Squared

Variance explained in the Endogenous Latent Variables

Latent Variables	**Variance Explained (R^2)**
Job Performance	66.90%

As indicated in Table 4.13, the research model explains 66.9 percent of the total variance in job performance. This suggests that four sets of exogenous latent variables (i.e., knowledge management, corporate entrepreneurship, public service motivation and organizational commitment) collectively explained 66.9 percent of the variance of the job performance. Thus, based on Falk and Miller's (1992) and

Chin's (1998) suggestions, the R^2 value explained by these latent variables on the target endogenous latent variable (i.e., job performance) is substantial. On another hand, the result is considered as moderate based (Falk & Miller, 1992) and Chin (1998).

4.4.2.5 Assessment of the Effect Size (f^2)

Effect size (f^2) is a measure applied to examine the relative impact of a predictor construct on an endogenous construct (Hair et al., 2014a). As an addition to examining the R^2values of all endogenous constructs, the change in the R^2 value when a specified exogenous construct is omitted from the model could be used to evaluate whether the omitted construct has a substantive impact on the endogenous constructs (Hair et al., 2014a). The effect size can be calculated as:

$$f^2 = \frac{R^2_{\text{included}} - R^2_{\text{excluded}},}{1 - R^2_{\text{included}}}$$

Where R^2 included and R^2 excluded are the R^2 values of the endogenous latent variable when a selected exogenous latent variable is included in or excluded from the model. The change in the R^2 values is calculated by estimating the PLS path model twice. It is estimated the first time with the exogenous latent variable included (yielding R^2 included) and the second time with the exogenous latent variable excluded (yielding R^2 excluded). Cohen (1988) provides f^2 of 0.02, 0.15 and 0.35, respectively; represent small, medium and large effects of the exogenous latent variable.

Table 4.14 indicates the effects size assessments of the respective exogenous latent variables on the endogenous variable in their direct relationships. From the Table, all the exogenous latent constructs that significantly affect the endogenous latent variables (refer Table 4.14) have a small effect on the endogenous latent variable (i.e. job performance). Specifically, knowledge management (0.076) has been considered as having a small effect size while corporate entrepreneurship (0.103) has been considered as having a medium effect size on job performance based on Cohen's (1988) formula.

Table 4.14
Effect Sizes of Exogenous Latent Variables

Construct	R^2 Included	R^2 Excluded	f^2	Effect Size
Knowledge Management	0.669	0.644	0.076	Small
Corporate Entrepreneurship	0.669	0.635	0.103	Medium

0	**0.02**	**0.15**	**0.35**
None	**Small**	**Medium**	**Large**

4.4.2.6 Predictive Relevance (Q^2)

This study also examined the Stone-Geisser's Q^2 value (Geisser, 1974; Stone, 1974) in order to evaluate the magnitude of the R^2 values as a criterion of predictive accuracy (Hair et al., 2014a). However, this criterion could be reflected as a value-added assessment of the model fit in the PLS-SEM analysis (Duarte & Roposo, 2010; Stone, 1974). Q^2 value larger than 0 suggests that the model has predictive relevance for a certain endogenous construct, while values of 0 and below show the absence of predictive relevance (Chin, 1998).

The suggested approach to test predictive relevance is called the Blindfolding procedure. According to Wold (1982, p. 30), ―the cross-validation test of Stone (1974) and Geisser (1975) fits soft modeling like hand in glove”. More specifically, when PLS-SEM exhibits predictive relevance, it accurately predicts the data points of indicators in reflective measurement models of endogenous constructs and endogenous single-item constructs (the procedure does not apply for formative endogenous constructs). Reflective measurement model specifies that a latent or unobservable concept causes variation in a set of observable indicators (McMillan & Conner, 2003). Since all endogenous latent variables in this study were reflective in nature, a blindfolding procedure was applied mainly to this endogenous latent variable.

In the structural model, Q^2 value larger than zero for a certain reflective endogenous latent variable indicates the path model‘s predictive relevance for this particular construct (Hair et al., 2014a). The Q^2 is a criterion to a measure how well a model predicts the data of omitted cases (Chin, 1998, Hair et al., 2014a). The procedure will remove data from the data set based on a pre-determined distance value called *D*. The *D* can be any number from 5-10 (Chin, 2010). The only requirement is that the sample size n divided by *D* should be a round number (Hair et al., 2014a).

Since the sample size was 682, any numbers from 5 to 10 except number 5 and number 10 can be selected. The other D value from the remaining numbers 6, 7 and 9 was chosen. The software calculated 2 values i.e.; cross-validated redundancy (cv-red) and cross-validated communality (cv-comm). For the purpose of validation, research will only look at cv-red. Based on Fornell and Cha (1994), a cv-red value of

> 0 indicates that there is predictive relevance while a value of < 0 shows the model lacks predictive relevance.

Table 4.15
Predictive Relevance (Q-Square) Value

Total	**1-SSE/SSO**
Job Performance	0.297

Table 4.15 qualifies the *blindfolding* outcome of the cross-validated redundancy (Q^2) test of the latent endogenous variable of the relationships model of this study. Since the cross-validated redundancy (Q^2) is greater than zero (0), it specifies that there is a path model predictive relevance (Chin, 1998; Hair et. al., 2014a; Hayes, 2009).

4.5 Power Analysis

Power (1-ß) can be defined as “the probability of rejecting H0 when H1 is true” (Larsen & Marx, 1981). In other words, power is the probability of obtaining a statistically significant result (H1) that is, successfully rejecting the H0 (Cohen, 1988). Falk and Miller (1992, p. 93) mentioned “in developing and testing complex models suing PLS path modeling, power analysis is important to validate the implications of sample sizes”. Though, it is generally assumed that sample size is less important in the overall model, Cohen (1988) stated that the power dynamics depends on three parameters namely the significance level of the test, the sample size (N) of the study and the effect size (ES) of the population.

For the purpose of assessing the adequacy of sample size of large complex models, the power analysis should be conducted on the portion of the model with the largest number of predictors (Chin & Newsted, 1999). Hence, past researchers used to rely on power charts (example; Scheffe, 1959) and power tables (Goldstein, 1989) such as G*Power 3.1.2 (Faul et al., 2009). The common convention is that the power of a statistical test should be at least 0.80 (Cohen, 1988, p. 56), and high power (>0.80) indicates that there is high degree of probability of producing significant results when the relationship is truly significant (Cohen, 1988). Therefore, this study applied G*Power 3.1.9.2 (Faul et al., 2009) for the purpose of conducting the “post hoc” power test to estimate the validity of statistical parameters. Based on the sample size of 682 at 0.05 level of significance and with an effect size of 0.04, this study gained an estimated power of 0.998, which met the minimum acceptance level. Hence, the study can be said to have confidence level of 99.8 percent probability of dictating an effect if it did exist (Cohen, 1992). Thus, this test confirmed that the hypotheses supported in this study had been truly significant. Table 4.17 illustrates the results obtained from G*Power Analysis for a priori and post hoc tests. Additionally, for the “a priori” power test, the result showed that at 0.15 level of significance, with an effect size 0.05, this study gained the power of 0.804, which met the minimum acceptance level. The minimum requirement of sample size needed is 68.

Table 4.16
*G*Power Analysis for A Priori and Post Hoc*

F tests - Linear multiple regression: Fixed model, R^2 deviation from zero		
Analysis: A priori: Compute required sample size		
Input:	Effect size f^2	= 0.15
	α err prob	= 0.05
	Power (1-β err prob)	= 0.80
	Number of predictors	= 2
Output:	Noncentrality parameter λ	= 10.2000000
	Critical F	= 3.1381419

Numerator df	=	2
Denominator df	=	65
Total sample size	=	68
Actual power	=	0.8044183

F tests - Linear multiple regression: Fixed model, R^2 deviation from zero
Analysis: Post hoc: Compute achieved power

Input: Effect size f^2	=	0.04
α err prob	=	0.05
Total sample size	=	682
Number of predictors	=	2
Output: Noncentrality parameter λ	=	27.2800000
Critical F	=	3.0089883
Numerator df	=	2
Denominator df	=	679
Power (1-β err prob)	=	0.9981488

Table 4.17 summarises the results of hypotheses testings.

Table 4.17
Summary of Findings: Hypotheses Testing Results

No	Hypotheses	Statement of Hypotheses	Findings
1	H1	There is a significant relationship between knowledge management and job performance	Supported
2	H2	There is a significant relationship between corporate entrepreneurship and job performance.	Supported
3	H3	Public service motivation mediates the relationship between knowledge management and job performance	Supported
4	H4	Public service motivation mediates the relationship between corporate entrepreneurship and job performance.	Not supported
5	H5	Organizational commitment moderates the relationship between knowledge management and job performance.	Not supported
6	H6	Organizational commitment moderates the relationship between corporate entrepreneurship and job performance.	Not supported

4.6 Summary of the Chapter

This paper presented the findings of the study. In the early section of the chapter, the preliminary analysis carried out in the study was explained and justified. Data cleaning for detecting missing values and outliers was conducted, and detected cases were eliminated from the dataset. Other tests that were performed included normality, multicollinearity, non-response bias, and common method variance (CMV). Demographic profiles of respondents as well as the descriptive statistics of the latent variables were presented in the chapter. PLS SEM was used in the analysis and the tests were conducted based on measurement model and structural model. The reliability of individual items, internal consistency reliability and validity of the reflective models were examined. The measurement model analysis also involved the evaluation of collinearity and significance test of the formative model (for the second-order constructs). In the structural model evaluation, the researcher assessed the significance of path relationships, coefficient of determination, effect size, and predictive relevance of direct relationships models as well as G-Power analysis were assessed. The findings revealed that H1 and H2 on the direct relationships were supported while only H3 on indirect relationship (mediating) was supported. Other indirect relationships; H4 (mediating) and H5 and H6 (moderating) were not supported. The discussion on the findings, implications of study, recommendation, and conclusions will be presented in Chapter Five.

CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

This chapter provides the discussion on the findings that have been presented in the preceding Chapter to support the developed hypotheses. The chapter presents the recapitulation of the key findings followed by the discussion of the study outcomes in relation to the research questions and objectives. It proceeds with the examination and discussion on the results of the six hypotheses tested in this study. Theoretical and practical implications of the study are alsoprsented. Lastly, the chapter addresses the limitations of study as well as providing some suggestions for future research.

5.2 Recapitulation of Study

This study examined the direct relationships between two independent variables; knowledge management and corporate entrepreneurship, and a dependent variable; job performance of middle management staff of local authorities in Malaysia. The study also investigated the mediating role of public service motivation and moderating role of organizational commitment on these relationships. The need to conduct studies on local Government managers was based on the proposition that the public sector faces problem while delivering services to the customer. The public expectation is becoming stronger in determining the direction of public organizations, and customer satisfaction is a norm in providing the service. They also want to be involved in the decision-making process of various public agencies, particularly agencies which are continuously dealing with the community. Exploring the public sector organizations specifically the local governments would bring greater depth to the understanding of the public sector entrepreneurship and knowledge management process, providing enhanced value to improve their job performance. Improving job performance may ultimately lead to enhanced service delivery. Overall, the study has succeeded in advancing the current understanding of factors affecting directly and indirectly the job performance of middle level managers in the Malaysian local government authorites.

This study framework was supported by the micro-foundation perspective of the resource-base view (Felin, Foss & Ployhart, 2015; Felin & Foss, 2009; Barney et al., 2011; Coff & Kryscynski, 2011; Foss, 2011; Khan, 2013; Barney & Felin, 2013) as its underpinning theory, which put forward that performance is greatly influenced by internal organizational resources and capabilities as sources of competitive advantage (Penrose, 1959; Barney, 1991, 1995; Dollinger, 2003). The RBV micro-foundation perspective brings in individual-level inputs to the fore of the RBV (Felin & Foss, 2009). The macro or organizational-level of the RBV has established the importance of bundling the internal resources together in unique and dynamic ways to realize organization success if the resources are considered valuable, rare, hard to imitate and non-substitutable, sustainable competitive advantage may be achieved (Barney, 1991, 1995). RBV proposes that resources are all assets, capabilities, routines, processes, skills, orientations, attributes, information and knowledge controlled by organization which enables it to execute strategies to enhance competitiveness and performance (Alvarez & Barney, 2007; Dollinger, 2003; Barnet 1991, 1995; Wernerfelt, 1984; Penrose, 1959).

For the intangible resources of the four intrinsic personal attributes (operationalized as knowledge management, corporate entrepreneurship, public service motivation and organizational commitment), ingrained in public sector‘s key human assets (operationalized as local government managers) were hoped to result in superior individual performance (operationalized as local governments‘ job performance). Knowledge based view which is an extension from resource-based view (Nonaka & Takeuchi, 1995; Pulakos et al., 2003) was integrated to underline the main role of the intangible knowledge resources among middle level managers to share their knowledge internalization and knowledge creation for the purpose of achieving better job performance. Corporate entrepreneurship was also included as a source of refreshment and rejuvenation for these mangers which gives them competitive advantage and in turns enhanced performance (Stewart, 2009; Gomex-Meija & Balkin, 1989; Matsuno, Mentzer & Ozsomer, 2002; Bateman & Crant, 1993; Nik Ismail, 2012).

Public Service Motivation (PSM) was tested as a mediator in the relationships between independent variables and and independent variable. PSM viewed public sector employees as characterized by an ethic to serve the public, their commitment to the public interest, desire to serve others and to self- sacrifice. They are imbued with the idea to do good deed for others and shape the well-being of society (Perry & Hondeghem, 2008; Kim & Vandenabeele, 2010). The study tested the PSM whether or not it accounts for the relationship between knowledge management and job performance and between corporate entrepreneurship and job performance. PSM as a mediator may explain why and how an effect on the relationships between these independent and dependent variables occur. Organizational commitment, on the other hand, was tested as a moderating variable in ths study. Organizational commitment is the relative strength of an individual‘s identification with, and involvement in a particular organization. Commitment represents something beyond mere passive loyalty to an organization. It involves an active relationship with the organization, such as individuals are willing to give something of them in order to contribute to the organization‘s well-being. Organizational commitment was added in the model of study to see whether or not it increases or decreases the strength of the relationships between the independent and dependent varaibles (knowledge management, corporate entrepreneurship, job performance).

5.3 Discussion

This section discusses the findings on both the direct and indirect relationships between variables of study. The discussion will be to answer the following research questions developed earlier in this study; (i) Is there significant relationship between knowledge management and job performance, (ii) Is there significant relationship between corporate entrepreneurship and job performance, (iii) Does public service motivation mediate the relationship between knowledge management and job performance, (iv) Does public service motivation mediate the relationship between corporate entrepreneurship and job performance, (v) Does organizational commitment moderate the relationship between knowledge management and job performance, and (vi) Does organizational commitment moderate the relationship between corporate entrepreneurship and job performance.

5.3.1 Knowledge Management and Job Performance

The study examined relationship between knowledge management and job performance. The aim of the study was to assess whether knowledge management can be a good predictor to job performance among middle managers in the local government authorities. PLS SEM was employed in the analysis, and the results revealed that knowledge management was significantly related to job performance ($ß=0.209$, $t=6.451$, $p<0.01$). It shows that knowledge management predicts job performance. This also suggests that when an individual employee in the organization is engaged with knowledge management, the better is his/her performance. In other words, it simply means that practicing a higher level of knowledge management would result in a higher level of job performance of the local governments in Malaysia. Improved employee performance will ultimately lead to enhance service delivery by the employees (Ismail & M. Yusof, 2009).

These findings supported earlier works of McAdam and O'Dell (2000), Al-Athari and Zairi (2001), Liebowits and Chen (2003), Syed Ikhsan and Rowland (2004), Chong, Salleh, Syed Ahmad and Syed Ikhsan (2011), Girard and McIntyre (2010) and Du, Ai and Ren (2007). The findings from these research stressed that knowledge management plays a significant role in job performance on public sector organizations. It is also in line with Skyrme (2003) who stated that knowledge management is able to increase efficiency in decision making and public service delivery. The findings also concurred with past studies such as Zack, McKeen and Singh (2009) which examined and found positive relationship between knowledge management practices and financial performance, Wang, Hult, Ketchen and Ahmed

(2009), Michael (2010), and Hou and Chien (2010) who also found significant and positive relationship between knowledge management and firm performance. Other studies were from Davood and Morteza (2012), Abiola (2013), and Lin (2014) which investigated knowledge management and performance of SMEs, and found a significant and positive relationship, Wang, Lee, Wu, Chang, and Wei (2012) who found the influence of knowledgement management on marketing performance of the auto industry, and Slavkovic and Babic (2013) which revealed significant and positive relationship between knowledge management and organizational performance in the manufacturing firms. The findings also supported studies by Daud and Yusoff (2010), Ngah and Ibrahim (2010), and Tan (2011) in the Malaysian context which found that knowledge management significantly influenced positive performance of the SMEs.

5.3.2 Corporate Entrepreneurship and Job Performance

The study also examined relationship between corporate entrepreneurship and job performance. The aim of the study was to assess whether corporate entrepreneurship can be a good predictor to job performance among middle managers in the local government authorities. The results of the analysis show that corporate entrepreneurship was significantly related to job performance (ß=0.260, t=7.368, $p<0.01$). It shows that corporate entrepreneurship predicts job performance in this study. This also suggests that when individual employees in the organization are engaged in entrepreneurial activities, the more they improve their performance. These employees are more likely to be innovative, proactive and involved in risk-taking with their job performance. These findings are in agreement with past studies that examined the relationship between corporate entrepreneurship and performance in different contexts. Wahid and Mahmood (2012) found positive and significant impact of corporate entrepreneurship on performance of banks in Malaysia, Jalali (2012) found positive and significant relationship between corporate entrepreneurship and performance of SMES, Zhang and Zhang (2012) found corporate entrepreneurship to be positively and significantly related to performance of Chinese companies, and Gurbuz and Aykol (2009) found positive and significant relationship between corporate entrepreneurship and performance of Turkish firms. The findings of this study are also similar to past studies results such as Aminu, Mahmood, and Muharram, (2015); Baba and Elumalai, (2011); Mahmood and Hanafi, (2013); Ahmad, Mohd Nasrudin, and Mohamed Zainal (2012), Wiklund and Shepherd, (2003, 2005); Holt et al., (2007); De Jong et al., (2011). These studies found that corporate entrepreneurship or intrapreneurial orientation has positive significant effect towards performance enhancement.

5.3.3 Mediating Effect of Public Service Motivation on the Relationship between Knowledge Management and Job Performance

This study also examined the mediating effect of public service motivation on the relationship between knowledge management and job performance. The existing model of knowledge management, corporate entrepreneurship and job performance was expanded to include public service motivation as a mediator variable. A mediating variable is that accounts for the relationship between a predictor variable (knowledge management) and an outcome variable (job performance). According to Baron and Kenny (1986) if an independent variable relates directly to mediator, and the mediator relates directly to dependent variable, then there is a possibility of mediation between the independent variable and dependent which signifies a direct and indirect relationship between the independent and dependent variables. In this study, it was hypothesized that knowledge management influences the mediating variable (public service motivation) which in turn influences the dependent variable (job performance). Public service motivation as a mediator variable serves to clarify the nature of relationship between knowledge management and job performance.

PLS SEM and bootsrapping procedure were used in the analysis. The bootstrapping procedure has been the recognized as one of the more rigorous and powerful methods for testing the mediating effect (Preacher & Hayes (2004; 2008), Hayes, 2009; Shrout & Bolger, 2002; Zhao, Li, Lee, & Chen, 2010). Hair et al., (2013) also noted that when testing mediating effects, researchers should rather follow Preacher and Hayes (2004; 2008) with the bootstrap the sampling distribution of the indirect effect which works for a simple and multiple mediator models. The analysis found that public service motivation (PSM) mediated the relationship between knowledge management and job performance ($ß=0.000354$; $p<0.01$) with a t-value of 2.72711. This means that public service motivation played a significant role in influencing knowledge management to effect job performance. The significant relationship between knowledge management and job performance results to public service motivation. The finding is in accordance with past studies that had examined the mediating role of motivation many different contexts such as between workplace characteristics and outcomes relationship (Jayaweera, 2015, Parker, Baltes, Young, Huff, Altmann, Lacost & Roberts, 2003; Geister, Konradt & Hertel, 2006), developmental feedback and employee job performance (Liao, Liao & Zhang, 2014), personality traits, performance appraisal satisfaction and job performance (Kuvaas, 2006; Barrick, Stewart & Piotrowski, 2002), and factors such as personality traits, performance appraisal satisfaction and job performance (Kuvaas, 2006; Barrick, Stewart & Piotrowski, 2002; Carr, Schmidt, Ford & DeShon, 2003; Ostroff, Atwater & Feinberg, 2003).

Mostafa, Gould-Williams and Bottomley (2015) identified public service motivation as an important mediating variable in terms of value creation, with regards to the attitudes that drive performance and organizational citizenship behaviors and affective commitment relationships. Other positive findings were from Camilleri and Van Her Heijden (2007), and Xiaohua (2008) who found PSM as mediator between job satisfaction and employee performance, and Jangkingthong and Rurkkhum (2012) whose study found the mediating role of public service motivation on factors such as transformational leadership, organizational justice, and work engagement on performance. These researchers had also suggested the inclusion of a mediating variable in a relationship between independent and dependent variables in the public sector. Thus the findings from this study fulfilled those suggestions by successfully examining the mediating role of public service motivation in the local government context.

5.3.4 Mediating Effect of Public Service Motivation on the Relationship between Corporate Entrepreneurship and Job Performance

This study also examined the mediating effect of public service motivation on the relationship between corporate entrepreneurship and job performance. The existing model of knowledge management, corporate entrepreneurship and job performance was expanded to include public service motivation as a mediator variable. A mediating variable is that accounts for the relationship between a predictor variable (corporate entrepreneurship) and an outcome variable (job performance). According to Baron and Kenny (1986) if an independent variable relates directly to mediator, and the mediator relates directly to dependent variable, then there is a possibility of mediation between the independent variable and dependent which signifies a direct and indirect relationship between the independent and dependent variables. In this study, it was hypothesized that corporate entrepreneurship influences the mediating variable (public service motivation) which in turn influences the dependent variable (job performance). Public service motivation as a mediator variable would serve to clarify the nature of relationship between corporate entrepreneurship and job performance.

PLS SEM and bootsrapping procedure were used in the analysis. However, the results did not support the mediating role of public service motivation on the relationship between corporate entrepreneurship and job performance. Although the first condition of mediation analyses in the PLS-SEM path models (ie. significant direct relationship between corporate entrepreneurship and job performance) was established in this study, public service motivation was not found to exert significant indirect influence on the relationship between corporate entrepreneurship and job performance. This contradicted the mediating role of public service motivation in many other studies (Jayaweera, 2015, Parker, Baltes, Young, Huff, Altmann, Lacost & Roberts, 2003; Geister, Konradt & Hertel, 2006; Liao, Liao & Zhang, 2014; Kuvaas, 2006; Barrick, Stewart & Piotrowski, 2002; Kuvaas, 2006; Barrick, Stewart

& Piotrowski, 2002; Carr, Schmidt, Ford & DeShon, 2003; Ostroff, Atwater & Feinberg, 2003; Camilleri & Van Her Heijden, 2007; Xiaohua, 2008; Jangkingthong & Rurkkhum, 2012).

A plausible explanation on this contradiction could be based on the fact that public service motivation in this study depended on simplistic conceptual model that misplaced important variables (Ritz, Brewer & Neumann, 2016). This was supported by previous researchers such as Vandenabeele (2009) and Wright and Pandey (2008) who examined PSM as a mediator variable, and Carpenter, Doverspike and Miguel (2012), Christensen and Wright (2011), Stejin (2008) who investigated PSM as a moderator variable. Other reasons may be due to different study settings and some methodological difficulties such as sampling and measurement error. These problems have biased the individual study outcomes and obscured true effect sizes (Hunter & Schmidt, 2015). The inconsistency of the results may also due to the different global measures of PSM (Wright, Christensen & Pandey, 2013), the dimensions which applied by different researchers with different dimensions (Kim & Vandenabeele 2010; Liu, Tang, & Zhu 2008; Ritz, 2011; Vandenabeele 2008) and how the measurement or meaning of PSM may differ across cultures (Kim et al., 2013). To overcome this inconsistency, a new alternative was proposed to measure the concept of public service motivation which could include global scale approaches (Wright, Christensen & Pandey, 2013) and provide more exact measurement instruments designed for certain populations and purposes in the research context. Thus every particular matter about the measurement must be taken care since it influences the results and implications. More significant results or outcomes may be achieved by standardizing the scale and measurement instruments of public service motivation.

5.3.5 Moderating Effect of Organizational Commitment on the Relationship between Knowledge Management and Job Performance

Past studies have linked organizational commitment with positive performance (Cesario & Chambel, 2017; Susanty & Miradipta, 2013; Alderton, 2016; Steyrer, Schiffinger & Lang, 2008), while others have found the mediating role of organizational commitment on the relationships in many contexts (Toban & Sjahruddin, 2016; Yeh & Hong, 2012; Wang, Liao, Xia & Chang, 2010; Rageb, Abd-El-Salam, El-Samadicy & Farid, 2013; Che Rose, Kumar & Pak 2009; Suliman, 2002; Davy, Kinichi & Scheck, 1997; Lee, Tan & Javalgi, 2010; Yucel, 2012; Darwish, 2000; Lee, Tan & Javalgi, 2010; Iverson, McLeod & Erwin, 1996). However, not much of these studies focused the moderating effect of organizational commitment on those relationships. Thus this study was conducted to examine organizational commitment as a moderator in the relationship between knowledge management and job performance.

The PLS SEM path modeling employed the bootstrapping (resample 5000) technique in the analysis where the effect of a moderating variable is characterized statistically as an interaction (Cohen et al., 2003). The product indicator approach was used to detect and estimate the strength of the moderating effect of organizational commitment on the relationship between knowledge management and job performance (Chin, Marcolin & Newsted, 2003; Helm et al., 2010; Henseler & Chin, 2010; Henseler & Fassot, 2010). The interaction between CE*OC and KM*OC was found to be negative, and Hypothesis 5 which posited that organizational commitment moderates the relationship between knowledge management and job performance was not supported (ß = -0.008, t = 0.170, p >0.10).

One possible reason for the absence of support for this hypothesized relationship might be due to the individuals who had high knowledge management appeared to be better with his/her job performance and does not need organizational commitment to support it. In this study, organizational commitment did not act as a buffer against the aversive effects of the knowledge management on individual‘s job performance. This reason is in line with the research by Tolentino (2013) who discovered job performance of administrative personnel was not influenced or affected by their organizational commitment. Schmidt (2007) who examined the moderating effect of affective organizational commitment on the association between work stress and strain found that the main and interaction effect of commitment were not bound to specific indicators of strain and work stressors, but exhibited at least some degree of invariance across methodological-difference. These findings have been linked with previous studies from Begley and Czajka (1993) and Siu (2002) as work stress was not significantly associated to commitment. These studies also found that employees with high commitment do not correlate with work stress but they may experience stress as less as threating and distributing since commitment provides them with stability, security and belonging (Meyer & Herscovitch, 2001). Rocha, Cardoso and Tordera (2008) further provided the evidence on the limitation of theoretical bases used in the knowledge management questionnaire where applicability of organizational processes linked to knowledge was measured by individuals‘ perceptions. Individuals were asked to identify activities related to knowledge that daily occur in their organizations, however, there may be daily activities in the organization which were not explicitly perceived by the members.

5.3.6 Moderating Effect of Organizational Commitment on the Relationship between Corporate Entrepreneurship and Job Performance

The study was also conducted to examine organizational commitment as a moderator in the relationship between corporate entrepreneurship and job performance. While not many studies have been conducted on this relationship, past studies have linked organizational commitment with positive performance (Cesario & Chambel, 2017; Susanty & Miradipta, 2013; Alderton, 2016; Steyrer, Schiffinger & Lang, 2008), while others have found the mediating role of organizational commitment on the relationships in many contexts (Toban & Sjahruddin, 2016; Yeh & Hong, 2012; Wang, Liao, Xia & Chang, 2010; Rageb, Abd-El-Salam, El-Samadicy & Farid, 2013; Che Rose, Kumar & Pak 2009; Suliman, 2002; Davy, Kinichi & Scheck, 1997; Lee, Tan & Javalgi, 2010; Yucel, 2012; Darwish, 2000; Lee, Tan & Javalgi, 2010; Iverson, McLeod & Erwin, 1996).

The PLS SEM path modeling employed the bootstrapping (resample 5000) technique in the analysis where the effect of a moderating variable is characterized statistically as an interaction (Cohen et al., 2003). The product indicator approach was used to detect and estimate the strength of the moderating effect of organizational commitment on the relationship between corporate entrepreneurship and job performance (Chin, Marcolin & Newsted, 2003; Helm et al., 2010; Henseler & Chin, 2010; Henseler & Fassot, 2010). The interaction between corporate entrepreneurship and job performance with regard to their effect on the organizational commitment was also not supported (ß=0.034, t=0.486, p>0.10).

The possible explanation for the lack of support for this hypothesized relationship may be due to the CE constructs which vary independently (George & Marino, 2011; Larsen & Korneliussen, 2012; Wang, 2008), depending on the environmental, organizational and cultural context (Knight, 1997; Rauch, Wiklund, Lumpkin, & Frese, 2009; Zhao, Lee & Chen, 2011). For example, Kemelgor (2002) explained that CE is characterized by cultural differences, and that there were significant differences in the intensity of CE between organizations in the US and the Netherlands. Other reasons could be that the relationship between EO and corporate performance was complicated (Wiklund & Shpherd, 2005), EO sometimes did not always contribute to improved business performance (Hughes & Morgan, 2007), or employing unidimensional construct of CE where a certain dimension was missed in the investigation (Indartono, 2013). Therefore, the differences of environment, type of organizational and cultural may produce the insignificant results of organizational commitment as moderator between the relationship of corporate entrepreneurship and job performance in this study.

5.4 Implications of the Study

The results of the study confirmed the statistically significant relationships between knowledge management and job performance as well as between corporate entrepreneurship and job relationship. The results also revealed the mediating role of public service motivation in the relationship between knowledge management and job performance. However, the study did not provide evidence to support the mdation of public service motivation in the relationship between corporate entrepreneurship and job performance. Similarly, the study established that organizational commitment had no moderating effect in the relationships between knowledge management and job performance, and between corporate entrepreneurship and job performance. Even though there were many studies conducted on knowledge management, corporate entrepreneurship, public service motivation, and organizational commitment on job performance, this study was considered the first attempt to connect all the variables in a single model with the job performance in the local government authorities in Malaysia. In addition, this study had considered recommendation by Johari (2010), who suggested that in future studies, the population should be expanded to different groups of public servants, for example, management and professional groups. Hence, this study focused on the management and professional group (grade 41- grade 54) employees of the local government authorities. The results of this study therefore provide theoretical and practical implications for the public organizations notably in the local government sector to achieve sustainability and improve overall performance.

5.4.1 Theoretical Implications

This study makes a significant contribution to the two theories underpinning the research framework. The study provided a unique opportunity for expanding resource based theory and knowledge based theory to explain the process within the employees in the public sector organizations that leads to improved performance. These two theories suggest that elements of internal resources such as resources or intangible assets that are within the organization can be considered as critical factors which influenced job performance (Barney & Felin, 2013; Foss, 2011; Coff & Kryscynski, 2011). Drawing on these theories it was assumed that local government managers as public sector _s key human capital are important intangible resources to the organization compared to other kind of assets and these resources are valuable, rare, hard to imitate and difficult to substitute (Barney, 1991, 1995 & Ireland, Hitt & Vaidyanath, 2002).

This study also demonstrated the importance of knowledge management and corporate entrepreneurship in the local government of the public sector. It gave contribution to the literature in terms of the impact of knowledge management and corporate entrepreneurship on job performance and provided a better understanding of the relationships between knowledge management, corporate entrepreneurship and job performance in the public sector organization especially in developing economies such as Malaysia. The implementation of knowledge management practices and inculcating corporate entrepreneurship behavior can have significant positive impact on job performance as well as enhancing overall performance. Thus knowledge management and corporate entrepreneurship are valuable resources and key driving forces for developing performance in non profit organization such the local government sector.

The study has identified factors pertaining specifically to employee job performance in the Malaysian local government authorities, thereby contributing to performance theory and expanding the performance literature. A theoretical model was developed for measuring the effectiveness of knowledge managemenent, and corporate entrepreneurship in influencing job performance in the context of local governements in the public sector. The model also acknowledged the role of public service motivation as a mediating force to cause the significant effect of knowledge management on job performance. It proved that the more the managers demonstrate their knowledge management, the higher their level of public service motivation and in turn, the better were their job performance (Camilleri & Van Her Heijden, 2007; Jayaweera, 2015; Jangkingthong & Rurkkhum 2012 & Xiaohua, 2008).

The method of analysis employed the second-order measurement on each instrument which is in line with Moynihan, Vandenabeele and Blom-Hansen (2013) suggestion as further research should progress with second-order measure of public service motivation instrument. Vandenabeele, Brewer, and Ritz (2014) have proposed three main strategies which should be implemented in order to make more substantial and valid theoretical claims. The first strategy is to enhance validity of the contextualization such as context-specificity when comparing different situations; issues of contextually indifferent measure (Kim et al., 2013), a global measurement of public service motivation (Wright, Christensen & Pandey, 2013), or proceed a good second-order measure of public service motivation (Moynihan et al., 2013).

This study has successfully demonstrated that a new metric instrumentation i.e. Knowledge Management Performance Index (KMPI) can be effectively utilized to measure employees‘ job performance in the Malaysian local government context. Based on Lee at al., (2005) work, the KMPI was developed, pilot-tested and recommended as an instrument to measure the quality of organizational knowledge, and it is associated to management performance. With minor modifications, this study adopted the tool and reconfirmed its content, criterion and construct validities through pilot-test, convergent validity and discriminant validity procedures (Fornell & Larcker, 1982; Hair et al., 2014a). The refined scale‘s composite reliability revealed a value of CR=0.904, thereby confirmed the knowledge management evaluation tool‘s reliability assessments‘ requirement value of more than of 0.7 as proposed by previous studies (Bagozzi, Yi & Phillips, 1991 & Hair, Ringle & Sarstedt, 2011).

5.4.2 Practical Implications

The relationship between knowledge management, corporate entrepreneurship and job performance has not been adequately addressed in the local government literature. The relative absence of research does not encourage leaders, managers, administrators and employees to adopt these strategies for the betterment of their organizations. There is thus a compelling need to effectively establish the linkage between knowledge management and corporate entrepreneurship practices and job performance. The results of the study revealed that both knowledge management and corporate entrepreneurship have significant influence on employee outcomes such as job performance. Since local government sector in Malaysia is now undergoing rapid process of transformation while at the time facing strong challenges in terms of the public service delivery effectiveness and efficiency, top management in this sector can apply the findings of this study to develop internal capacity in key areas in the departments so as to improve the quality of job performance which leads to increased efficiency in delivering services (Mohamed & Wee, 2016; Ismail & Yusof, 2009).

The local governments should provide the opportunities for employee development especially those in the middle management levels. These employees need to be encouraged to improve their knowledge or skills as well as inculcating the entrepreneurial behavior. These are valuable for the knowledge management practices in an organization (Bratianu, 2010). Both the knowledge management practices and entrepreneurial orientation are essential for achieving successs. This strategy generates improvements in the decision making process and procedures, better allocation of resources, and contributes to overall effectiveness. On the other hand, the lack of strategy negates the realization of the benefits from the sector's internal resources and human assets. Thus knowledge management and corporate are two critical elements of competitiveness, efficient service delivery, and effective policy-making decisions (Cong & Pandya, 2003).

Successful knowledge dissemination requires employees who are motivated to share knowledge, work together, and rely upon each other to perform and deliver quality work. These employees worked in an organization that is closely related with bureaucratic practices in the structures, processes and culture. They may be reluctant to embrace changes if it is viewed as an imposition rather than an improvement in their professional and personal lives. Top management must inform, involve and inspire members of their organizations. Knowledge management mechanisms are able to help and develop the management to share the tacit and explicit knowledge for improving job performance on each organization. Knowledge as a driver of success will not occur without recognition of its importance and support for its implementation by the top management. In addition, employee involvement is crucial because the purpose of knowledge management is primarily to elevate personal knowledge to organizational knowledge where individual involvement is a precondition. Without employee involvement, knowledgement process and implementation within the local governments will fail.

The findings also confirmed a significant positive effect of corporate entrepreneurship on job performance. Corporate entrepreneurship should be encouraged in the local government context because such behavior is effective when dealing with situations where it offers the valuable of doing service innovation, proactive to resolve the problems and implementation of ideas or knowing when to take risks in decision making, and flexible to try and employ new procedures, services, and processes. Corporate entrepreneurship is also a valuable resource and the key driving force for developing the sector's performance by increasing the level of innovativeness, pro-activeness, and calculated risk taking behavior among the decision-makers as well as sustaining competitive advantage. Thus, this finding is an important contribution to the management operations, innovation practices, and overall effectiveness in which corporate entrepreneurship should be developed and executed as an integral part of strategy within the local government sector organizations.

This study also contributed towards the measurement of job performance at the individual level of analysis. The instrument was effectively applied to measure officer's job performance in the Malaysian local government context. This instrument had never been employed in any previous published empirical study before (Koopmans et al., 2011; 2013; 2014a; 2014b). The successful employment of the instrument stands as a significant practical contribution to the field of research in local government‘s job performance in particular and that the instrument has demonstrated its effectivess in assessing job performance of among employees in the public sector. Based on Koopmans et al., (2011, 2013, 2014a, 2014b) works, the Individual Work Performance Questionnaire (IWPQ) was developed, pilot-tested and recommended as a generic instrument that is suitable for workers in all types of occupations (i.e., blue, pink and white collar workers). With minimal modifications, this study adopted the tool and reconfirmed its content, criterion and construct validities via pilot-test, convergent validity and discriminant validity procedures (Fornell & Larcker, 1982 & Hair et al., 2014a). The refined scale‘s composite reliability also revealed a value of CR=0.893, thereby confirmed the job performance evaluation tool‘s value of more than 0.7 (Bagozzi, Yi & Phillips, 1991; Hair et al., 2011).

Investing in knowledge management and corporate entrepreneurship is indeed worthy in today‘s ever changing environment and competitive landscape where the effect of knowledge and entrepreneurism is essential for future success of the organization. The ability to develop and leverage the value of intangible resources comprises a core competency for the organization, and unique resources and capabilities such as knowledge management and corporate entrepreneurship are needed for sustainability and high performance.

5.5 Limitations of Study and Directions for Future Research

This study has several limitations. First is that in this study factors affecting either directly or indirectly to job performance were limited to knowledge management, corporate entrepreneurship, public service motivation, and organizational commitment only. Based on the findings there might be other variables affecting this relationship. The low level of R squared suggested that other factors might also affect job performance. Future research may want to widen the scope of study by incorporating other variables such as training, leadership, job involvement and job commitment. This is due to the reason that behavioral outcome is influenced by many other predictors as well, not limited to knowledge management and corporate entrepreneurship. The inclusion of other variables may be able to explain the issues in details affecting job performance in the local government authorities. Moreover, the study failed to accomplish the hypothesized moderating effect of organizational commitment on knowledge management, corporate entrepreneurship and job performance relationships as well as the mediating role of public service motivation the the corporate entrepreneurship and job performance relationship. This may be the underdeveloped measurement scales which require further examination.

In this study a quantitative survey method was adopted and questionnaire was the only instrument used to collect the data. The limitation of this method is that it cannot guarantee the reliability of data collected because it depended on the respondent‘s attention to detail when answering the questions. In addition the information gathered about the variables of study is limited to the questionnaires‘ response. Perhaps future research should employ also qualitative methods as a strategy of triangulation which would include detailed interviews to elicit verbal descriptions of characteristics (Wright & Grant, 2010). Qualitative research usually involves fewer cases investigated in more depth than quantitative research. It would also provide a more comprehensive understanding of interactive and complex relationships among variables in the local government context.

Cross-sectional sample was employed to obtain the data. The data collected were based on perceptions of respondents in terms of their responses to the questionnaires used at the particular time. This does not allow the determination of cause and effect or the impact of changes over time (Creswell, 2013; Zikmund, 2003). The variables used in this study; knowledge management, corporate entrepreneurship, public service motivation, and organizational commitmeng are dynamic and tend to change over time, and examining their association with job performance in a static way the data were collected may not totally provide an accurate picture. It would be greater value for a longitudinal study to be conducted that collects data over two or more points of time in order to get the causal relationships of all variables in future studies. Obtaining and studying data using the longitudinal method would likely provide further insights regarding probable outcomes, and thus gives a clearer picture on the relationship between the variables and job performance.

The study also relied mainly on self-reports of the respondents. While self-report data are a practical and feasible method of data collection, they may not be precise reflections of reality. Self-reported data tend to be more positive and may not always be completely truthful (Zikmund & Babin, 2007). This is because respondents may have been concerned about expressing negative opinions on their own self and organization and responded in a socially desirable manner. There is no way to check the accuracy of data as no secondary sources were available. Therefore the best way to counter this is to offer a counter-biasing statement, encouraging all respondents to participate and assuring them of anonymity and privacy that may help remove some desire to misrepresent information.

Job performance in this study was measured as unidimensional constructs comprising task performance and contextual performance of the organization (Koopsmans et al., 2011, 2013 & 2014a & 2014b). Subjective and self-reported measures were used to gauge job performance. The use of subjective measurement might reflect the degree of self-confidence of respondents when measuring their own performance. However, data collected through subjective measures or self-reported questionnaire are often associated with the problems of social desirability and memory decay, even though such data are tested for reliability and validity (Kollmann & Stöckmann, 2014). Thus future studies should adopt also objective measurement to complement this subjective measurement. Future research could benefit from the use of more objective measures or a combination of perceptual and objective data to provide reliable conclusions on the performance construct.

Finally, the limitation of this study may be due to the use of a five-point Likert scale in which the respondents measured the degree of agreement and disagreement on the statements related to knowledge management, corporate entrepreneurship, public service motivation and organizational commitment. The Likert type scale was considered the most suitable measurement scale for this study. However, it was observed that respondents sometimes used to measure their perceptions on the questions automatically without careful attention and understanding to their statements. Thus it would be difficult to assume that all the questions have been understood completely and answered correctly. Future research should also consider the employment of qualitative methods for the purpose of corroborating and validifying the results, thus eliminating this study limitation.

5.9 Conclusions

This study investigated the direct effect of knowledge management and corporate entrepreneurship on job performance of middle management employees in the local government authorities in Malaysia. The study also examined the mediating effect of public service motivation on the relationship between knowledge management, corporate entrepreneurship, and job performance as well as the moderating role of organizational commitment on the those relationships. Data were collected from 728 respondents who represented the middle level management in the local government authorities throughout Malaysia, and PLS SEM was used in the final analysis. The research framework was underpinned by three theories, namely; Resource-based theory, Knowledge based theory, and Expectancy theory of motivation. The results revealed that both knowledge management and corporate entrepreneurship were positively and significantly related to job performance. Further analysis indicated that public service motivation mediated the relationship between knowledge management and job performance, but not the relationship between corporate entrepreneurship and job performance. No moderating effect of organizational commitment was found on both relationships between knowledge management, corporate entrepreneurship, and job performance. Thus, two hypotheses of study on direct relationships (H1, H2) were supported, another indirect (mediating) relationship (H3) was also supported while another three hypotheses on indirect (mediating and moderating) relationships (H4, H5 & H6) were not supported.

This study has contributed to an increased understanding of the nature of knowledge management and corporate entrepreneurship on their impact on job performance. It also provided a foundation through the identification of factors that positively and significantly effect directly and indirectly job performance in the local government authorities, the public sector organizations. This central finding has both the theoretical and practical implications on the importance of certain variables as value drivers in achieving sustainability and competitive adavantage in the dynamic and ever changing public sector landscape.

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APPENDICES

APPENDIX A

Research Questionnaire

Tuan /Puan,

Saya adalah calon PhD di Universiti Utara Malaysia dan sedang menjalankan satu kajian bertajuk "**Pengurusan Pengetahuan, Keusahawanan Korporat, Motivasi, Komitmen Organisasi dan Prestasi Kerja di Sektor Awam**".

Sehubungan dengan itu, saya amat berbesar hati sekiranya tuan/puan dapat melengkapkan soal-selidik ini dan mengembalikan kepada saya dalam sampul yang disertakan. Soal-selidik ini akan mengambil masa 15 minit sahaja. Maklum balas tuan/puan adalah sulit dan akan digunakan untuk tujuan kajian akademik sahaja.

Jika terdapat sebarang pertanyaan atau kemusykilan, tuan/puan boleh menghubungi saya di talian 012-4664286 atau e-mel azrain@uum.edu.my.

Kerjasama tuan/puan amat dihargai dan saya dahulukan dengan ucapan terima kasih atas penglibatan tuan/puan dalam menjayakan kajian ini.

Yang benar,

Azrain Nasyrah Binti Mustapa
Pusat Pengajian Pengurusan Perniagaan,
Kolej Perniagaan (COB) – Bangunan Utama
Universiti Utara Malaysia,
06010 Sintok, Kedah.

Faks: 04-9287422

Dear Sir/ Madam,

I am a PhD candidate at the Universiti Utara Malaysia and I am conducting a study entitled ***"Knowledge Management, Corporate Entrepreneurship, Motivation, Organizational Commitment and Job Performance in the Public Sector".***

I need your help in ensuring the success of this study. It will take approximately 15 minutes to complete the questionnaire. Please complete the questionnaire and return it in the enclosed envelope. Your response will be treated in the strictest confidence and will be used for academic purposes only.

For further information, please do not hesitate to contact me at 012-4664286 or email at azrain@uum.edu.my.

Thank you in advance for your kind cooperation.

Sincerely,

Azrain Nasyrah Binti Mustapa
School of Business Management,
College of Business (COB) – Main Building,
Universiti Utara Malaysia,
06010 Sintok, Kedah.

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BAHAGIAN 1
PART 1

Seksyen A: Pengurusan Pengetahuan

Section A: Knowledge Management

Bagi setiap pernyataan, sila **BULATKAN** bersetuju atau tidak bersetuju menggunakan skala penilaian berikut:

*For each statement, please **CIRCLE** your agreement or disagreement by using the following rating scale:*

1 = Sangat tidak bersetuju	**2 = Tidak setuju**	**3 = Neutral**	**4 = Setuju**	**5 = Sangat setuju**
1 = Strongly disagree	*2 = Disagree*	*3 = Neutral*	*4 = Agree*	*5 = Strongly agree*

1.	Saya boleh belajar sebarang keperluan untuk tugas-tugas baru. *(I can learn what is necessary for new tasks.)*	1	2	3	4	5
2.	Saya boleh merujuk amalan terbaik dan mengaplikasikannya dalam tugas saya. *(I can refer to do best practices and apply them to my tasks.)*	1	2	3	4	5
3.	Saya boleh menggunakan Internet untuk mendapatkan pengetahuan tentang tugas saya. *(I can use the Internet to obtain knowledge for the tasks.)*	1	2	3	4	5
4.	Saya sering menggunakan papan buletin elektronik untuk menganalisis tugas. *(I often use an electronic bulletin board to analyze tasks.)*	1	2	3	4	5
5.	Penjawat terdahulu telah menjelaskan sepenuhnya semua tugas saya. *(My predecessor adequately introduced me to my tasks.)*	1	2	3	4	5
6.	Saya memahami sepenuhnya pengetahuan terpenting yang diperlukan untuk tugas saya. *(I fully understand the core knowledge necessary for my tasks.)*	1	2	3	4	5

7.	Saya mendapatkan maklumat berguna daripada mesyuarat sumbang saran tanpa memperuntukkan masa yang banyak. *(I obtain useful information from brainstorming meetings without spending too much time.)*	1	2	3	4	5
8.	Saya mendapatkan cadangan berguna daripada mesyuarat sumbang saran tanpa memperuntukkan masa yang banyak. *(I obtain useful suggestion from brainstorming meetings without spending too much time.)*	1	2	3	4	5
9.	Saya mencari maklumat tentang tugas saya daripada pelbagai sumber pengetahuan yang diuruskan oleh organisasi. *(I search information for tasks from various knowledge sources administered by the organization.)*	1	2	3	4	5
10.	Saya memahami program komputer yang diperlukan untuk melaksanakan tugas dan menggunakannya dengan baik. *(I understand computer programs needed to perform the tasks and use them well.)*	1	2	3	4	5
11.	Saya bersedia menerima ilmu baru dan mengaplikasikannya dalam tugas saya apabila perlu. *(I am ready to accept new knowledge and apply it to my tasks when necessary.)*	1	2	3	4	5

Seksyen B: Keusahawanan Korporat

Section B: Corporate Entrepreneurship

1 = Sangat tidak bersetuju	2 = Tidak setuju	3 = Neutral	4 = Setuju	5 = Sangat setuju
1 = Strongly disagree	*2 = Disagree*	*3 = Neutral*	*4 = Agree*	*5 = Strongly agree*

1.	Saya mencari teknologi, proses, teknik, dan / atau idea produk baru. *(I search new technologies, processes, techniques, and/ or products ideas.)*	1	2	3	4	5
2.	Saya menjana idea kreatif. *(I generate creative ideas.)*	1	2	3	4	5
3.	Saya menggalakkan dan memperkenalkan idea baru kepada orang lain. *(I promote and champion new ideas to others.)*	1	2	3	4	5
4.	Saya menyelidik dan mendapatkan dana yang diperlukan untuk melaksanakan idea baru. *(I investigate and secure fund needed to implement new ideas.)*	1	2	3	4	5
5.	Saya membangunkan pelan dan jadual yang sesuai untuk melaksanakan idea baru. *(I develop adequate plans and schedules for the implementation of new ideas.)*	1	2	3	4	5
6.	Saya berinovatif. *(I am innovative.)*	1	2	3	4	5
7.	Saya tidak bersedia untuk mengambil risiko ketika memilih pekerjaan atau organisasi untuk bekerja. *(I am not willing to take risks when choosing a job or organization to work for.)*	1	2	3	4	5
8.	Saya lebih suka pekerjaan yang berisiko rendah/ jaminan yang tinggi dengan gaji yang stabil berbanding pekerjaan berisiko tinggi yang menawarkan ganjaran yang tinggi. *(I prefer a low risk/high security job with a steady salary over a job that offers high risks and high rewards.)*	1	2	3	4	5
9.	Saya lebih suka untuk kekal dengan pekerjaan yang saya tahu masalahnya, daripada mengambil risiko bekerja dengan pekerjaan baru yang masalahnya tidak saya ketahui, walaupun menawarkan ganjaran yang lebih besar.	1	2	3	4	5

	(I prefer to remain on a job that has problems that I know about rather than take the risks of working at a new job that has unknown problems even if the new job offers greater rewards.)					
10.	Saya melihat risiko dalam pekerjaan sebagai situasi yang perlu dielakkan sepenuhnya. *(I view risk on a job as a situation to be avoided at all costs.)*	1	2	3	4	5
11.	Apabila membuat keputusan yang berkaitan dengan tugas, saya suka mengambil “kedudukan selamat”. *(When it comes to making work-related decisions, I like to “play it safe”.)*	1	2	3	4	5
12.	Saya hanya akan melaksanakan sesuatu perancangan jika saya pasti perkara tersebut akan berhasil. *(I like to implement a plan only if I am very certain that it will work.)*	1	2	3	4	5
13.	Di mana pun saya berada, saya akan menjadi pengaruh yang kuat bagi sesuatu perubahan yang membina. *(Where ever I have been, I have been a powerful force for constructive change.)*	1	2	3	4	5
14.	Jika saya melihat sesuatu yang saya tidak suka, saya membaikinya. *(If I see something I don’t like, I fix it.)*	1	2	3	4	5
15.	Tidak kira apa pun kemungkinannya, jika saya yakin akan sesuatu, maka saya akan memastikan perkara itu berlaku. *(No matter what the odds, if I believe in something I will make it happen.)*	1	2	3	4	5
16.	Saya suka memperjuangkan idea saya, walaupun berhadapan dengan pihak lawan. *(I love being a champion for my ideas, even against others’ opposition.)*	1	2	3	4	5
17.	Saya sentiasa mencari cara yang lebih baik untuk melakukan pekerjaan di tempat kerja. *(I am always looking for better ways to do things at work.)*	1	2	3	4	5
18.	Saya boleh melihat peluang yang baik sebelum orang lain melihatnya. *(I can spot a good opportunity long before others can.)*	1	2	3	4	5

Seksyen C: Motivasi
Section C: Motivation

1 = Sangat tidak bersetuju	2 = Tidak setuju	3 = Neutral	4 = Setuju	5 = Sangat setuju
1 = Strongly disagree	*2 = Disagree*	*3 = Neutral*	*4 = Agree*	*5 = Strongly agree*

1.	Politik bukanlah perkataan yang kotor. *(Politics is not a dirty word.)*	1 2 3 4 5
2.	"Dasar tolak ansur dalam perkhidmatan awam" menarik minat saya. *(The "give and take of public policy-making" appeals to me.)*	1 2 3 4 5
3.	Saya sangat mengambil berat terhadap ahli politik. (*I care very much for politicians.)*	1 2 3 4 5
4.	Saya mudah prihatin dengan perkara yang sedang berlaku dalam masyarakat. *(It is easy for me to get intensely interested in what is going on in my community.)*	1 2 3 4 5
5.	Saya menyumbang kepada masyarakat dengan ikhlas. *(I unselfishly contribute to my community.)*	1 2 3 4 5
6.	Saya menganggap khidmat masyarakat sebagai tanggungjawab sivik saya. *(I consider public service my civic duty.)*	1 2 3 4 5
7.	Khidmat masyarakat yang bermakna sangat penting bagi saya. *(Meaningful public service is very important to me.)*	1 2 3 4 5
8.	Saya lebih suka melihat penjawat awam melakukan yang terbaik kepada seluruh masyarakat walaupun ianya melibatkan kepentingan saya. *(I would prefer seeing public officials do what is best for the whole community even if it harmed my interests.)*	1 2 3 4 5
9.	Saya sukar mengawal perasaan apabila melihat orang dalam kesusahan. *(It is difficult for me to contain my feelings when I see people in distress.)*	1 2 3 4 5
10.	Kebanyakan program sosial terlalu penting yang perlu dilaksanakan. *(Most social programs are too vital to do without.)*	1 2 3 4 5

11.	Saya sering disedarkan oleh peristiwa harian yang kita saling bergantung antara satu sama lain. *(I am often reminded by daily events how dependent we are on one another.)*	1	2	3	4	5
1.	Saya sering diberi kesedaran dengan mereka yang kurang bernasib baik. (*I am often moved by the plight of the underprivileged.)*	1	2	3	4	5
13.	Bagi saya, patriotisme termasuklah menyediakan kebajikan untuk orang lain. *(To me, patriotism includes seeing to the welfare of others.)*	1	2	3	4	5
14.	Saya sangat bersimpati kepada mereka yang memerlukan bantuan, walaupun enggan mengambil langkah-langkah untuk membantu diri sendiri. *(I have a lot of compassion for people in need who are unwilling to take the first steps to help themselves.)*	1	2	3	4	5
15.	Banyak program awam yang saya sokong dengan sepenuh hati. *(There are many public programs that I wholeheartedly support.)*	1	2	3	4	5
16.	Saya sering memikirkan kebajikan orang lain yang saya tidak kenal secara peribadi. *(I often think about the welfare of people I do not know personally.)*	1	2	3	4	5
17.	Melakukan perbuatan yang baik lebih penting bagi saya, berbanding mendapatkan kedudukan kewangan yang baik. *(Doing good deed is definitely more important to me than doing well financially.)*	1	2	3	4	5
18.	Kebanyakan perkara yang saya lakukan melebihi kepentingan diri sendiri. *(Much of what I do is for a cause bigger than myself.)*	1	2	3	4	5
19.	Berkhidmat untuk orang lain akan memberikan kepuasan diri walaupun saya tidak dibayar. *(Serving other citizens would give me a good feeling even if no one paid me for it.)*	1	2	3	4	5
20.	Melakukan perubahan dalam masyarakat lebih bermakna bagi saya, berbanding pencapaian peribadi. *(Making a difference in society means more to me than personal achievements.)*	1	2	3	4	5

21.	Saya berpendapat, orang ramai perlu memberi semula kepada masyarakat lebih daripada yang mereka peroleh. *(I think people should give back to society more than they get from it.)*	1 2 3 4 5
22.	Saya bersedia untuk berkorban demi kebaikan masyarakat. *(I am prepared to make enormous sacrifices for the good of society.)*	1 2 3 4 5
23.	Saya adalah seorang daripada sebahagian kecil yang sanggup menanggung risiko kerugian peribadi semata-mata untuk membantu orang lain. *(I am one of those rare people who would risk personal loss to help someone else.)*	1 2 3 4 5
24.	Saya mengutamakan tugas dan tanggungjawab daripada diri sendiri. *(I believe in putting duty before self.)*	1 2 3 4 5

Seksyen D: Komitmen Organisasi

Section D: Organizational Commitment

1 = Sangat tidak bersetuju 2 = Tidak setuju 3 = Neutral 4 = Setuju 5 = Sangat setuju
1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

1.	Saya akan berasa sangat gembira untuk menghabiskan kerjaya saya dengan organisasi ini. *(I would be very happy to spend the rest of my career with this organization.)*	1	2	3	4	5
2.	Sangat sukar bagi saya meninggalkan organisasi saya sekarang, walaupun saya ingin melakukannya. *(It would be very hard for me to leave my organization right now, even if I wanted to.)*	1	2	3	4	5
3.	Saya percaya bahawa saya mempunyai kewajipan untuk kekal dengan majikan sekarang. *(I believe I have an obligation to remain with my current employer.)*	1	2	3	4	5
4.	Saya gemar berbincang tentang organisasi saya dengan orang lain. *(I enjoy discussing my organization with people outside it.)*	1	2	3	4	5
5.	Banyak perkara dalam hidup saya akan terganggu, jika saya membuat keputusan meninggalkan organisasi saya sekarang. *(Too much of my life would be disrupted if I decided I wanted to leave my organization right now.)*	1	2	3	4	5
6.	Walaupun meninggalkan organisasi sekarang memberikan kelebihan kepada saya, saya merasa tindakan ini tidak tepat. *(Even if it were to my advantage, I do not feel it would be right to leave my organization now.)*	1	2	3	4	5
7.	Saya benar-benar merasakan bahawa masalah organisasi adalah masalah diri saya. *(I really feel as if this organization's problems are my own.)*	1	2	3	4	5
8.	Pada masa ini, berkhidmat dengan organisasi saya sekarang adalah menjadi kewajipan saya. *(Right now, staying with my organization is a matter of necessity as much as desire.)*	1	2	3	4	5

9.	Saya akan berasa bersalah jika meninggalkan organisasi saya sekarang. *(I would feel guilty if I left my organization now.)*	1 2 3 4 5
10.	Saya berasa seperti "sebahagian daripada keluarga" di organisasi saya. *(I feel like “part of the family” at my organization.)*	1 2 3 4 5
11.	Saya percaya bahawa saya mempunyai pilihan yang terhad untuk meninggalkan organisasi ini. *(I believe that I have too few options to consider leaving this organization.)*	1 2 3 4 5
12.	Salah satu sebab utama saya terus bekerja untuk organisasi ini ialah kerana meninggalkannya memerlukan pengorbanan peribadi yang besar (organisasi lain mungkin tidak sepadan dengan kesemua kemudahan yang saya pernah ada di sini). *[One of the major reasons I continue to work for this organization is that leaving would require considerable personal sacrifice (another organization may not match the overall benefits I have here).]*	1 2 3 4 5
13.	Organisasi ini layak mendapatkan kesetiaan saya. *(This organization deserves my loyalty.)*	1 2 3 4 5
14.	Organisasi ini mempunyai makna yang sangat peribadi bagi saya. *(This organization has a great deal of personal meaning for me.)*	1 2 3 4 5
15.	Saya tidak akan meninggalkan organisasi saya sekarang kerana saya mempunyai rasa tanggungjawab kepada warga kerja di dalamnya. *(I would not leave my organization right now because I have a sense of obligation to the people in it.)*	1 2 3 4 5
16.	Saya mempunyai rasa kekitaan yang tinggi kepada organisasi saya. *(I have a strong sense of belonging to my organization.)*	1 2 3 4 5
17.	Jika saya belum meletakkan diri saya sepenuhnya dalam organisasi ini, saya mungkin mempertimbangkan untuk bekerja di tempat lain. *(If I had not already put so much of myself into this organization, I might consider working elsewhere.)*	1 2 3 4 5

18. Saya sangat terhutang budi kepada organisasi saya. 1 2 3 4 5
(I owe a great deal to my organization.)

Bahagian E: Prestasi Kerja

Section E: Job Performance

1 = Sangat tidak bersetuju	**2 = Tidak setuju**	**3 = Neutral**	**4 = Setuju**	**5 = Sangat setuju**
1 = Strongly disagree	*2 = Disagree*	*3 = Neutral*	*4 = Agree*	*5 = Strongly agree*

1. Saya merancang kerja saya supaya dapat dilaksanakan dalam masa yang ditetapkan. 1 2 3 4 5
(I managed to plan my work so that it was done on time.)

2. Saya membayangkan keputusan yang perlu saya capai dalam kerja. 1 2 3 4 5
(I kept in mind the results that I had to achieve in my work.)

3. Saya dapat memisahkan isu penting daripada isu sampingan di tempat kerja. 1 2 3 4 5
(I was able to separate main issues from side issues at work.)

4. Saya berupaya melaksanakan kerja dengan baik dalam masa dan dengan usaha yang minimum. 1 2 3 4 5
(I was able to perform my work well with minimal time and effort.)

5. Perancangan saya adalah yang terbaik. 1 2 3 4 5
(My planning was optimal.)

6. Kerjasama dengan orang lain adalah sangat produktif. 1 2 3 4 5
(Collaboration with others was very productive.)

7. Saya memulakan tugas baru sendiri, setelah tugas lama saya selesai. 1 2 3 4 5
(I started new tasks myself, when my old ones were finished.)

8. Saya mengambil tugas yang mencabar, apabila disediakan. 1 2 3 4 5
(I took on challenging work tasks, when available.)

9. Saya bekerja dengan memastikan pengetahuan kerja saya sentiasa terkini. 1 2 3 4 5
(I worked at keeping my job knowledge up-to-date.)

10.	Saya bekerja dengan memastikan kemahiran kerja saya sentiasa terkini. *(I worked at keeping my job skills up-to-date.)*	1	2	3	4	5
11.	Saya menghasilkan penyelesaian kreatif untuk masalah-masalah yang baru. *(I came up with creative solutions to new problems.)*	1	2	3	4	5
12.	Saya mengambil tanggungjawab tambahan. *(I took on extra responsibilities.)*	1	2	3	4	5
13.	Saya sentiasa mencari cabaran baru dalam kerja saya. *(I continuously sought for new challenges in my work.)*	1	2	3	4	5
14.	Saya terlibat secara aktif dalam perundingan kerja atau mesyuarat. *(I participated actively in work consultations or meetings.)*	1	2	3	4	5

BAHAGIAN 2

PART 2

Seksyen F: Latar belakang Demografi

Section F: Demographic Background

Sila **TANDAKAN (√)** dalam kotak yang berkenaan dan isikan jawapan yang sesuai.

*Please **INDICATE (√)** in the respective boxes and fill in the appropriate answers.*

1. Jantina:
   Gender:

   ☐ Lelaki *Male* ☐ Perempuan *Female*

2. Umur:
   Age:

   ☐ 21 - 30 tahun *21 - 30 years* ☐ 31 - 40 tahun *31 - 40 years*

   ☐ 41 - 50 tahun *41 - 50 years* ☐ Atas 50 tahun *Above 50 years*

3. Tahap pendidikan:
   Educational level:

   ☐ Diploma / Sijil *Diploma / Certificate* ☐ Ijazah Pertama *Undergraduate* ☐ Ijazah Sarjana *Master*

   ☐ Doktor Falsafah (PhD) *Doctor of Philosophy (PhD)* ☐ Kelulusan profesional lain *Other professional qualification*

4. Jabatan/ unit semasa: ____
   Current department/ unit: ____

5. Gred jawatan semasa:
   Grade of current position:

☐ Gred 41 *Grade 41* ☐ Gred 44 *Grade 44* ☐ Gred 48 *Grade 48*

☐ Gred 52 *Grade 52* ☐ Gred 54 *Grade 54*

6. Tempoh bekerja dalam jawatan semasa:
   Number of years in current position:

   ☐ Kurang daripada 1 tahun *Less than 1 year* ☐ 1 - 5 tahun *1 - 5 years* ☐ 6 - 10 tahun *6 - 10 years*

   ☐ 11 - 15 tahun *11 - 15 years* ☐ 16 - 20 tahun *16 - 20 years* ☐ 21- 25 tahun *21- 25 years*

   ☐ Lebih daripada 25 tahun *More than 25 years*

7. Anugerah Perkhidmatan Cemerlang (Tahun) (Jika ada):
   Excellence Service Award (Year) (If any): ______________________________

9. Sila tinggalkan sebarang komen dan cadangan berkenaan dengan penyelidikan ini, jika ada: *Please feel free to leave any comments and suggestions related to this research, if any:*	

Terima kasih atas kerjasama anda.

Thank you for your cooperation.

APPENDIX B

Cover Letter of Questionnaire Distribution

9 Februari 2015

Azrain Nasyrah Binti Mustapa
Pusat Pengajian Pengurusan Perniagaan,
Kolej Perniagaan (COB) – Bangunan Utama
Universiti Utara Malaysia
06010 Sintok, Kedah.

Datuk Bandar
Dewan Bandaraya Kuala Lumpur
Tingkat 5, Menara DBKL 1
Jalan Raja Laut
50350 Kuala Lumpur
Wilayah Persekutuan.
(U.p: Pengarah Jabatan Perancangan Korporat)

Assalamu'alaikum Wrt. Wbt./ Salam Sejahtera,
Y. Bhg. Dato'/Datin/Tuan/Puan,

PERMOHONAN MENGEDARKAN BORANG SOAL-SELIDIK KAJIAN PhD

Saya adalah calon PhD di Universiti Utara Malaysia dan sedang menjalankan satu kajian bertajuk **"Pengurusan Pengetahuan, Keusahawanan Korporat, Motivasi, Komitmen Organisasi Dan Prestasi Kerja Di Sektor Awam".** Kini, saya sedang dalam usaha menyiapkan kajian melalui proses kutipan data daripada responden.

Sehubungan itu, saya memohon kerjasama Y. Bhg. Dato'/Datin/tuan/puan untuk mengedarkan borang soal-selidik kepada para pegawai **Kumpulan Pengurusan dan Profesional (P&P) - (Gred 41 hingga 54)** yang terdiri daripada semua skim perkhidmatan serta sedang berkhidmat di **Pihak Berkuasa Tempatan (PBT) di Malaysia**.

Bersama-sama ini disertakan salinan surat akuan dan borang tersebut untuk perhatian dan tindakan Y.Bhg. Dato'/Datin/tuan/puan. Kerjasama dipohon agar dapat mengumpulkan semula borang tersebut dan dikembalikan kepada saya melalui sampul berbayar / kotak berbayar yang disediakan **selewat-lewatnya pada 20 MAC 2015**. Sebarang pertanyaan atau kemusykilan, sila hubungi saya pada talian 012-4664286 atau emel azrain@uum.edu.my.

Dengan ini, kerjasama Y. Bhg. Dato'/Datin/tuan/puan untuk mengedarkan borang soal selidik tersebut kepada pegawai pentadbiran di PTJ masing-masing amatlah saya harapkan dan saya dahului dengan ucapan terima kasih.

Sekian. Wassalamu'alaikum/ Salam Hormat.

Yang benar,

Azrain Nasyrah Binti Mustapa
Penyelidik

APPENDIX C

Letter of Introduction for the Purpose of Data Collection

**OTHMAN YEOP ABDULLAH
GRADUATE SCHOOL OF BUSINESS**
Universiti Utara Malaysia
06010 UUM SINTOK
KEDAH DARUL AMAN
MALAYSIA

UUM
Universiti Utara Malaysia

Tel: 604-928 7118/7119/7130
Faks (fax): 604-928 7160
Laman Web (Web): www.oyagsb.uum.edu.my

KEDAH AMAN MAKMUR • BERSAMA MEMACU TRANSFORMASI

UUM/OYAGSB/K-14
9 November 2014

KEPADA SESIAPA YANG BERKENAAN

Tuan/Puan

KUTIPAN DATA

PROGRAM: **DOKTOR FALSAFAH PENGURUSAN**
PENYELIA: **PROF. DR. ROSLI BIN MAHMOOD**

Adalah dimaklumkan bahawa pelajar berikut merupakan pelajar pasca siswazah Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia. Beliau sedang mengikuti pengajian di peringkat Ijazah Kedoktoran, dan memerlukan beliau untuk menjalankan tugasan dan kajian akademik. Butiran pelajar adalah seperti berikut:

NO.	NAMA	NO. MATRIK
1.	Azrain Nasyrah Binti Mustapa	94743

Sehubungan ini, kami berharap agar pihak tuan dapat memberi bantuan dan kerjasama kepada beliau untuk menyempurnakan tugasan yang diberi. Semua maklumat yang telah dikumpulkan akan digunakan untuk tujuan akademik sahaja.

Kerjasama dan bantuan daripada pihak tuan amat dihargai dan didahului dengan ucapan terima kasih.

"ILMU, BUDI, BAKTI"

Yang menurut perintah

ABDUL SHAKUR ABDULLAH
Penolong Pendaftar
b.p. Dekan
Othman Yeop Abdullah Graduate School of Business

c.c - Fail Pelajar

APPENDIX D

Harman's Single Factor

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	25.627	30.149	30.149	25.627	30.149	30.149
2	4.981	5.861	36.010			
3	3.696	4.348	40.358			
4	3.239	3.810	44.168			
5	2.350	2.765	46.933			
6	2.182	2.567	49.500			
7	1.731	2.036	51.536			
8	1.649	1.940	53.476			
9	1.363	1.604	55.080			
10	1.274	1.499	56.578			
11	1.234	1.452	58.030			
12	1.208	1.421	59.451			
13	1.118	1.315	60.766			
14	1.031	1.213	61.979			
15	.998	1.174	63.153			
16	.991	1.166	64.319			
17	.919	1.081	65.400			
18	.901	1.061	66.461			
19	.891	1.048	67.509			
20	.838	.986	68.495			
21	.820	.965	69.460			
22	.801	.942	70.402			
23	.756	.890	71.292			
24	.747	.879	72.171			
25	.708	.833	73.004			
26	.696	.819	73.823			
27	.676	.795	74.618			
28	.654	.769	75.387			
29	.642	.756	76.143			
30	.634	.746	76.889			
31	.612	.720	77.609			
32	.600	.706	78.315			

33	.589	.692	79.007			
34	.583	.686	79.693			
35	.568	.669	80.362			
36	.561	.661	81.022			
37	.548	.645	81.668			
38	.530	.623	82.291			
39	.525	.617	82.908			
40	.512	.603	83.511			
41	.505	.594	84.105			
42	.495	.582	84.687			
43	.481	.565	85.252			
44	.459	.540	85.792			
45	.450	.530	86.322			
46	.438	.516	86.838			
47	.434	.511	87.348			
48	.416	.490	87.838			
49	.411	.483	88.322			
50	.406	.478	88.799			
51	.398	.468	89.267			
52	.394	.464	89.731			
53	.387	.455	90.186			
54	.376	.442	90.628			
55	.367	.432	91.060			
56	.356	.419	91.480			
57	.353	.415	91.894			
58	.349	.411	92.305			
59	.345	.406	92.711			
60	.333	.392	93.103			
61	.329	.387	93.489			
62	.316	.371	93.861			
63	.309	.364	94.225			
64	.299	.351	94.576			
65	.294	.346	94.921			
66	.290	.342	95.263			
67	.279	.328	95.591			
68	.269	.317	95.908			
69	.263	.309	96.217			
70	.260	.306	96.523			
71	.252	.296	96.820			
72	.243	.286	97.106			

73	.239	.282	97.387			
74	.231	.272	97.659			
75	.230	.270	97.929			
76	.219	.258	98.187			
77	.210	.247	98.434			
78	.193	.227	98.660			
79	.186	.219	98.879			
80	.183	.215	99.094			
81	.179	.211	99.305			
82	.162	.191	99.495			
83	.159	.187	99.682			
84	.142	.167	99.849			
85	.128	.151	100.000			

Extraction Method: Principal Component Analysis.