**Coventry University** 



#### DOCTOR OF PHILOSOPHY

#### E-Performance Assessment System in Governmental Organizations in the United Arab Emirates

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# E-performance assessment system in governmental organizations in the United Arab Emirates

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## E-Performance Assessment System in Governmental Organizations in the United Arab Emirates

Bу

#### Abdul Aziz Nasser Al-Raisi

Doctor of Philosophy in E-Performance Management Faculty of Engineering and Computing Coventry University September 2011

#### ABSTRACT

This research examines the introduction of e-performance assessment systems in governmental organizations in the United Arab Emirates. The research also examines the influence of cultural forces in accepting the implementation of technology systems that deal with assessment and evaluation of government employees to facilitate the transitional process from manual to e-performance assessment.

The methodology used in this research can be described as follows: first a descriptive method to explain the main management theories underlying employee e-performance, followed by an illustration of the concept of electronic tools, based on what has been written in the relevant literature, then conducting a pilot study. A pilot study was made to reduce uncertainty in survey questions, increase clarity, enhance questionnaire validity, and expand on factors that might affect data analysis, improve research design, and confirm the feasibility of this research study.

The conceptual model of this study is determined on the based of literature analysis, the pilot study, and the empirical collection of data. A model for a performance appraisal assessment system is proposed, which shows a statistical significance between performance management, e-performance management, performance assessment, e-performance assessment, and performance standards with both perceived usefulness and perceived ease of use. This study finds that there are numerous factors shapes ethics and norms at the workplace. This study suggests that the United Arab Emirates enjoys highly structured governmental organizations. This primarily results from the naturally inherited characteristics of being a high-context society. The major findings of this research aim to contribute to available literature, as there is currently a distinct shortage of relevant academic work targeting the issue of governmental e-performance systems. Similarly no papers concerning e-performance in a UAE context actually existed prior to this investigation. Therefore, much of the available literature was found to be only semi-relevant.

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#### PUBLICATIONS

Owing to the unique nature of this research investigation, some of the main results of this research work have been published as follows:

#### First Paper:

Abdulaziz Al-Raisi, Saad Amin, and Saad Tahir (2009). oral presentation at DeSE09 conference, Abu Dhabi, UAE. Effectiveness of Employee Performance Management Systems in the UAE Public Sector, published in the special issue of *IEEE journal, V3, April 2010.* 

#### Second Paper:

Abdulaziz Al-Raisi, Saad Amin, and Saad Tahir (2010). Determinants of Performance Management System in UAE Public Sector. *International Journal of Trade and Global Markets* 3(3): 267–79.

#### Third Paper:

Abdulaziz Al-Raisi, Saad Amin, and Saad Tahir (2010). E-Performance Management System: Its Implementation and Effectiveness within the United Arab Emirates Federal Government Organizations. *Advances in Management Journal* (February Issue).

#### Fourth Paper:

Abdulaziz Al-Raisi, Saad Amin, and Saad Tahir. Evaluation of E-Performance Analysis and Assessment in the UAE Organizations. *Journal of Internet and Information Systems* Journal of internet and information system Vol. 2(2), pp. 20 -27, July 2011.

#### Fifth Paper:

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#### **CHAPTER 1**

#### INTRODUCTION

Given the rapid changes in technology, management, and available financial resources, Armstrong (2006) stated that maintaining highly skilled, well-performing workforces in a troubled global economy is a daunting task. Increased competition, new regulatory bodies, changing technology, and process management engineering could disrupt traditional employee practices and capability. The challenge for most organizations is that the use of technology to drive human performance is relatively new and not well understood (Cooper and Schindler, 2005). To meet such demands, organizations and businesses are relying on communications technology to monitor and improve employee performance and productivity (Frayne and Geringer, 2005).

Businesses are under pressure to improve performance. However, business managers and workplace learning and performance professionals tend to rely on the same tools and techniques that they have been using for years. The impacts of poor stress, time, and knowledge management can compound to create a vicious circle of poor performance (Fryer et al., 2009). There needs to be a proactive approach to stress prevention and effective time and knowledge management that can create the opposite effect: a virtuous circle of high individual and organizational performance. E-performance helps to better manage organizational performance drift through efficient and cost-effective performance measurement techniques (Jarrar and Schiuma, 2007).

Therefore in this research an attempt has been made to evaluate the e-performance management systems (e-PMS) followed in the United Arab Emirates (UAE). The UAE has grown over the past few decades as an economic hub for the Middle East region. Due to oil exploration, business and trade have flourished in recent decades and have provided a huge number of job opportunities to expatriates and local UAE nationals. The area has witnessed many technological changes, and it is evident that there need to be well-monitored performance measurement systems for better

organization performance. This research evaluates e-performance analysis and assessment in the UAE organizations that used the system.

This chapter introduces the historical background and focuses on the main aims of this thesis. It highlights the importance of e-performance in governmental organizations in the UAE and how culture plays a vital role in performance management. Overall, the aims, the main objectives, and an overview of the context of each chapter presented in this thesis are highlighted and discussed.

#### 1.0 Modern organizations, the workplace, and performance management

The core elements of performance management systems remain confined to a process that consists of managers and the people who manage the process. There are number of elements ranging from cultural to managerial that directly influence workers' performance in the twenty-first century. Incentives and rewards, for instance, must be aligned with business units and organizational objectives to achieve successful performance management systems. Since performance management is the primary method for evaluating workers, gaining first-hand understanding of the challenges facing the contemporary workforce is a primary concern for both managers and organizations.

The implications of performance management practices on employees are complex, largely because of changing organizational structures, advancements in technological network systems that connect people in more ways than ever before, and the changing nature of the skills required from modern employees. Furthermore, modern organizations are required to become far more agile than in the past. This adds to the complexity of the modern workplace and capacity needed by modern employees. Managing the expectations of both the organization and the employee is a difficult task for modern managers. Performance management systems, particularly e-performance management systems, are expected to close the gap in expectation between the organization and the worker. For instance, modern workers are expected to be highly trained in whatever task they are to perform, possess

highly specialized skills, and to perform multi-tasks as required by their employers with minimal retraining.

Modern organizations, however, are under constant pressure from shareholders to increase shareholder value, reduce cost, increase productivity, and increase employees' creativity. Hence, modern workers' ability to keep up with changes in modern organization whether in the private or public sector is largely dependent on a number of cultural, financial, and technological capabilities available to modern workers. As more work is outsourced internationally, the modern geographies of the newly emerging workforce represent a nation's ability to strategically respond to current market needs. Although the UAE enjoys the capability to develop its own workforce, it is also a net importer of skilled and specialized labour. This in turn is causing serious demographic shift in the structure of the population that will impact future generations born and raised as UAE nationals.

The globalization of the workforce and the rapid growth in population in the UAE is increasing the pressure on local governments and employees. On the one hand, local UAE nationals are required to adapt to changes in the workforce that are occurring at a higher rate than ever before largely because of efficiency requirements. On the other hand, local governments in the UAE are required to train, monitor, and build higher capacity among modern UAE nationals, and gauge their performance. These objectives are not easy because the modernization of the entire workforce made up of UAE nationals is relatively new to both the government and the population.

#### 1.1 Effective workforce and performance management

Ever since the launch of e-government initiatives in the UAE, performance management has been in the vanguard of the public sector. More specifically, government organizations in the UAE are required today more than ever before to link employees' performance with growth in the public sector. Public sector growth in the UAE has been driven by two factors: first, rapid economic growth has created

higher demand for government-based services; and second, rapid growth in education amongst UAE nationals who found themselves in the public sector supporting such growth (Behery, 2011).

In both cases, growth occurred too quickly. Various sectors of the UAE government found themselves in the position of mass hiring of fresh graduates to absorb them into the public sector (Randeree and Ninan, 2011). This, however, left the private sector in the UAE heavily dependent on expatriates, and kept UAE nationals distant from the efficiency and effectiveness of the private sector. This study sheds light on whether UAE nationals and non-UAE nationals are skilled enough to perform their duties effectively. Moreover, this study investigates the optimal utilization of eperformance management systems in governmental settings in the UAE, and how to apply such systems for adequate decision-making. It is important to mention, however, that optimal, not adequate, performance is one of the primary objectives of intergovernmental agencies in the UAE. This also puts more pressure on management and employees to improve performance and results.

Currently, the issue of employee effectiveness is a grey area within UAE-based governmental organizations. One of the primary objectives of higher management within the public sector is to intensify training for employees to improve effectiveness. Post-training performance, however, is difficult to measure without effective performance management systems. It is unclear whether managerial assessment is fair and accurate in measuring employees' performance. It is also unclear whether the training provided was utilized properly by government employees to improve their performance and adequately measured. Cultural elements play a significant role in determining the relationship between number of variables such as effectiveness, competency of management in the public sector to utilize employees' full capacity, and effectiveness of current e-performance management systems in gauging employees' performance.

#### 1.2 Intergovernmental organizational structure in the UAE

The structure of government organizations in the UAE is traditionally a complex one. This complexity is derived from overlapping federal and state jurisdictions, and because of funding issues. Historically, each state (Emirate) funds certain governmental organizations, while others are funded by the federal government. Recently, governmental organizations are undergoing fundamental revision in authority allocation, funding, and jurisdiction. The purpose is to improve decisionmaking, unify funding, and clarify jurisdiction. These structural revisions are conducted by specialized consultants, with the mandate to reduce complexity, improve efficiency, and increase effectiveness of performance amongst governmental agencies. However, no official study has yet been conducted by an independent body that measures employees' performance, whether electronic or non-electronic, in governmental organizations in the UAE. This study will contribute significantly to the available literature, and will provide better understanding of the nature of e-performance management systems in governmental organizations in the UAE.

Furthermore, it is imperative to understand the amount of personal involvement by managerial level government employees in decision-making and monitoring the performance of their subordinates. Again, cultural norms are such that employees with any given managerial authority tend to centralize decision-making and micromanage the daily affairs of the government unit (Berham et al., 2011). Behery (2011) concurs that developing economies tend to suffer from lack of delegation of responsibilities among their organizations. This phenomenon is widespread in the UAE. Reasons for such managerial practices range from lack of awareness of advanced managerial practices, which is also attributed to the level of education of management in governmental organizations, to the desire to control the destiny of employees and the entire organization if possible (Abdulla et al., 2011).

Additional factors influencing managerial practices that have been identified by various management scholars such as Drucker (2008) and Hill and McShane (2006) include social values that are deeply rooted in some high-context societies and

directly linked to the social concept of filial piety. Respect for elders, maintaining harmony within the workplace, and being non-confrontational are essential qualities and prerequisites to holding any government position in the UAE. Thus, breaking away from such managerial norms is not only unacceptable, but is often fiercely resisted by upper management.

Self-imposed managerial norms then are likely to hinder objective performance management in the UAE, which increases the need for electronic-based performance measures to increase the objective assessment of employee performance in governmental organizations. This is one of the primary motives for this study in the attempt to determine the impact of culture on employee performance and the need for e-performance management systems in the UAE.

#### **1.3 Introduction to e-performance management**

Organizations are increasingly looking for solutions to manage and maximize the performance of their workforce. They recognize that there has been a shift in the business environment from a tangible asset economy to an intangible asset economy. The value of a company is comprised of employee knowledge, brand, and intellectual capital rather than inventories, goods, and machinery (Jarrar and Schiuma, 2007). Most organizations base their performance reviews on 'what' goals and 'how' goals. The 'what' goals focus on specific objectives that the individual should accomplish, for example increase sales by 10 %. The 'how' goals outline the means by which an employee will achieve the 'what' goals, which often are expressed in terms of competencies and behaviours (Kwok et al., 2003).

The e-performance systems identify the major components that have a dramatic impact on the efficiency and effectiveness of organizational operations such as:

- Improving service delivery through decentralization and institutional restructuring.
- Strengthening the policy formulation and monitoring process with the facilitation of communications and information-sharing between departments, companies, and government.

- Enhancing professionalism in the public and private sector by increasing the capacity of the organizations to attract and retain qualified staff.
- Improving financial management and accountability. Modern companies are forced to introduce modern budgetary processes.
- Promoting good governance and combating corruption.
- Managing the reform process.

E-performance drives business results by directly linking employee performance and rewards with the organization's financial and business objectives:

- Goal linking capabilities drive alignment of missions, initiatives, and departmental or individual goals.
- Multi-document functionality enables multi-rater and 360-degree feedback.
- Unique sets of business rules and approval processes for different organizations and enterprises are supported.
- The application can be tailored for any workforce group, region, or individual.
- The employee development process with workflow is driven in an easyto-use, Web-based environment.
- High-quality feedback for employees can be constructed more frequently, while simultaneously reducing the risk associated with nonstandardized assessments.
- Real-time graphical reports ensure visibility of the process

Karrer and Gardner (2004) explain the concept of e-performance as:

E-performance = use of technology to improve human performance

E-performance = e-development + e-interaction + e-support

E-performance = technologies, interactive models, and tools aimed at online learning and development activities.

E-performance is an easy-to-use, Web-based, self-service solution built as a selfservice application for the managers and employees to:

- Collaboratively plan performance, behaviours, and competencies.
- Link strategic enterprise objectives to employee performance results and goals.
- Track performance progress throughout the performance period.
- Leverage HR writing tools, such as Results Writer, Language Checker, Spell Checker, and Development Tips.
- Rate and weight results and competencies.
- Leverage pre-integrated performance and competency content.
- Track performance review deliverables with alerts and reports.
- Complete assessments for results, behaviours, and competencies.
- View embedded clear graphical reports for such functions as Status Dashboard, Rating Distributions, and Status Summary.

An e-performance system is a competency-based system that measures people not only on goal attainment but also on the very competencies that are required for their role. To ensure success, one can choose to support all employee goals with competencies and competency ratings that will help achieve success (Rettab et al., 2009). One can quickly see whether a candidate has the right qualities for the job, and can identify the training and development they need in order to succeed. The competency library and ratings are stored in the core human resource management (HRM) system so that other processes such as learning, talent searches, and succession planning can leverage these data (Ramlall, 2003).

However, the challenge of identifying each employee's talents, capabilities, and areas for growth to encourage positive contribution and manage poor performance is daunting. Furthermore, most organizations want a single-system solution that works

for all countries, regions, departments, and individuals and can be leveraged globally to deliver consistent messages, foster accountability, and offer reports.

#### 1.4 Background of e-performance in the UAE

Since 1970, the UAE has provided various job opportunities for many expatriates. At present, there are more than 150 nationalities in the UAE with the highest percentage being from Asian and Arab countries in addition to nationalities such as Africans, Europeans, Australians, Canadians, and Americans. Many expatriates, especially those coming from underdeveloped countries, repatriate part of their income to their home countries, which has effectively contributed to their national income and helped in socio-economic development (Ibrahim, 2011).

On the other hand, the development of the UAE's national population has been a major focus of government policy. Thirty-two per cent of the UAE population are under the age of 18 and the majority in these age groups are UAE citizens (Belal and Momin, 2009). Thus there is an urgent need to create employment opportunities. This is coupled with a recognition that high company performance is essential if the country's growth is to continue. Besides conventional training opportunities in institutes of higher education, industry-based training is growing rapidly in the oil industry and other organizations. A special cabinet manpower committee supervises the development of the UAE's human resources, with the objective of maximizing local employment and reducing dependence on expatriate labour.

Keeping national development and progress in mind, the e-government and eperformance initiative is led and supervised closely by H.H. Sheikh Mohammed Bin Rashid Al Maktoum, the Ruler of Dubai and the Vice President of the UAE. The eperformance system is more than a project that merely introduces electronic services. It is a substantive upgrading and improvement of the quality of life in the UAE. E-performance facilitates business dealings with departmental and governmental departments, by allowing individuals to deal with official procedures at the time and place of their choice. Speed and clarity of communication have been identified as new priorities.

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Figure 1.1 E-performance systems (http://www.dubai.ae)

The UAE has been ranked as one of the top performers in e-government readiness in the Middle East and Africa region, according to the United Nations e-government report (UN, 2005). The UAE has undertaken a number of projects and initiatives to improve the country's information and knowledge capacity. Over the past few years, the UAE has made momentous advances in bringing its services online, for both business and individual users. The UAE's readiness initiatives include, but are not limited to, technology parks, e-government programmes both at the federal and the state levels, incubation programmes, and e-commerce initiatives both in the public and private sectors. Figure 1.1 shows an example of such programmes.

The UAE expatriate and resident customer is the project's key partner and of foremost concern for the e-performance project. The e-government initiative is driven by the idea of making customers the main partners by providing services electronically and in an easy manner, enhancing their quality of life. The core purpose is to ease the lives of people and businesses that interact with the

government and thus contributing to the development of Dubai as a leading hub of the new economy.

The e-government executive team is the highest point of the organizational pyramid of the e-performance monitoring project. It comprises e-services and shared services units as well as some senior IT administrators from government departments. The e-government executive team and other units are linked directly to the H.H. the Ruler's Court.

The e-services unit assists in innovative electronic links to facilitate public dealings with the government, and administers and manages the portal, the hub of all e-services of the Dubai government. It is responsible for developing content and setting standards for e-services and ensuring security. It also manages the promotion of e-services through interaction with the community to promote wider usage.

There are clear examples to show the focus on the e-services in the government departments in the UAE. The Dubai government has said that it intends to make all future government purchases through it. Tejari.com, for instance, has quickly emerged as the premier digital marketplace in the Middle East. It remains, however, the sole online procurement service provider with a demonstrated knowledge of the unique challenges and traditions of the region's business community. Tejari.com reported that by the end of September 2004, Tejari had secured 2,960 trading partners, and recorded 30,114 online transactions for the year, including e-auctions and electronic purchase orders. The total value of transactions recorded through Tejari since its launch has reached more than US\$1 billion (http://www.tejari.com).

When looked from the UAE organization's perspective, the activities initiated, supported, or reflected on the e-performance site should facilitate the establishment of institutional frameworks for cascading the knowledge and implementation of the organization's trade policy at the departmental and government levels. This website plays a vital role in generating wide public debate by providing all stakeholders with an opportunity to offer their inputs on international trade issues.

The UAE business community is dedicated to modelling and documenting all the activities occurring within an e-service (including department internal processing, i.e. back-office processing) in a workflow format. The business requirements refer to documentation of all the related business requirements for an e-service and e-service quality framework definition and implementation guidelines like the e-service related forms and screens flow.

#### 1.5 Rationale

The focus of this research study is the utilization of e-performance management systems in governmental organizations in the United Arab Emirates. The rationale that initiated an interest in this study is as follows:

- There is shift in modern organizations towards the utilization of e-performance management systems to increase objectivity in assessment, reduce cultural biases in assessment, and increase efficiency (Arnold, 2009).
- The federal government is the largest employer of UAE nationals (Belal and Momin, 2009). The federal government in the UAE will continue to be the largest employer as it feels obliged to provide employment to an increasing population. Therefore, research in the area of e-performance will contribute to the field in the UAE and will enhance performance assessment, which is relatively new to the federal government of the UAE.
- Although there is an awareness of the importance of utilization of electronic systems to assess employee performance, numerous studies have showed that personal judgement and personal connections are still widely utilized as a tool of performance assessment in the UAE (Behery, 2011; Fernandes and Awamleh, 2006; Moideenkutty, Al-Lamki, and Murthy, 2011; Tlaiss and Kauser, 2011)

#### 1.6 Research aim and objectives

The e-performance project seeks equal treatment, quick response time, and minimum inconvenience and cost for all layers of society. The UAE seeks to accommodate the lifestyle and business preferences of those living in the country with a far-reaching vision of what can be achieved.

Among the factors that have shaped the aim of this research and generated interest in strategic performance management and a comprehensive e-performance system are:

- Recruiting skilled and competent managers.
- The need to develop a more flexible and adaptable skill base.
- The need to integrate the potential of all employees within business objectives.
- Greater emphasis on performance evaluation and management.
- The increasing need for human resource and succession planning.
- The need for a single performance management system to access all employee-related performance data.

Such strategic aims will be achieved through the following strategic agenda items by the UAE e-performance systems:

- E-enablement of 90% of public services by mid-2012 (includes identification of all online and offline public services in each department and also service prioritization for e-enablement).
- Implementation of e-service quality guidelines in government departments
- Implementation of a virtual government by joining up administrative boundaries through electronic integration and data sharing.
- Implementation of targeted marketing campaigns for customers.
- Implementation of synergistic e-services to achieve expedited implementation and cost savings.

Hence this research is focused on assessing the e-performance measurement techniques followed in the UAE, which is home to a large number of expatriates and has a very booming economy. The focus is on the performance assessment methods applicable in the Middle East economy and emphasizes improvising them to meet the changes of employee empowerment, globalization and technology, and the ever-growing economy with special focus on the technical workforce sectors.

Adopting an e-performance solution could save money, time, and labour that are currently wasted on sifting through reams of paper. Electronic enablement of the performance process can be more specifically identified as the move to electronically processing orders for goods and services, as well as payments, which offers significant benefits through:

- fewer manual processes;
- lower cost in completing each process;
- tight alignment between the organization and its preferred employee;
- increased contract compliance;
- better management and efficient information flow;
- coordinated migration to cost-effective technology;
- Automated end-to-end performance processing.

Despite the benefits of e-performance, organizations and individuals have not fully adopted this new electronic practice. In addition, organizations that have adopted eperformance have not fully utilized the functionalities of this practice and therefore have not reaped the expected returns.

Therefore, to achieve all the above, a link should exist between the performance monitoring and assessment in an organization and its business strategy. Additionally, personnel today are widely regarded as 'human resources' with the implication that, like other resources, they are to be valued and carefully managed. The amount of financial resources available for employee development is limited, necessitating decisions about where to deploy the physical, human, or financial resources to maximum effect. Such decisions can only be made if those responsible

for e-performance management systems are clear about the organization's strategy and priorities. An alignment between organizational strategy and performance monitoring is now commonly regarded as good business sense.

Hence, e-performance enables learning and career planning processes. Finally, the overall assessment is determined and can automatically kick off related initiatives such as salary increases, bonuses, learning initiatives, or succession plan candidacy or employee motivation and retention.

It appears through a critical review of the literature presented in the next chapter, that the impact of e-PMS has not been widely studied in the context of the UAE. Thus, the aim of this research is also to help fill the gap that has been identified in the literature review. Thus, it is essential for this research to critically examine how e-PMS will help to improve the effectiveness of the output of the employees of the federal government organizations. This research will also focus on and assess the overall views of the users' perception of the employee e-PMS, which will help in understanding the effects of Arab cultural attitudes on e-PMS satisfaction.

The research will also discuss the processes and difficulties associated with the survey processes for the compilation of e-PMS.

#### **Research objectives**

In order to meet the above indicated aims, the research will focus on the following research objectives:

**Objective 1:** To review the background research on the e-performance system and its connection to culture.

**Objective 2:** To study employee e-performance systems used in UAE federal government organizations taking into account the Emirate and expats' cultural acceptance and usage of electronic systems.

**Objective 3:** To discover the impact of using employee e-performance systems on management processes in organizations.

**Objective 4:** To develop e-performance systems guidelines or a model that can be used in the wider Arab world.

#### Significance of the research

This study will be valuable to three main parties: the employee, the organization, and the country.

#### (a) The employee level

At the employee level, future employees will be able to experience adequate and objective assessment without cultural, personal, or tribal biases, as is now the case on numerous occasions. The nature of personnel assessment will be highly objective, and future employees will receive a higher level of fairness in assessment of their performance. This study will contribute to the increase of efficient, objective assessment and better performance ultimately as morale improves amongst employees.

#### (b) The organization level

This research will be help to reduce the role currently played by personal feelings, cronyism, tribalism, and favouritism in organizations as their management processes become electronic and involve more parties in the assessment of employee performance. Government organizations in the UAE are keen to reduce such biases and to elevate government organizations to a global level whereby national diversity and gender integration meet international standards (Abdulla et al., 2011; Fernandes and Awamleh, 2006).

Additionally, an appreciation of the cultural norms and mores will create better understanding of how to implement future e-performance management systems with minimal resistance and a higher degree of acceptance. This research attempts to achieve greater understanding of the cultural elements that might impact successful future implementation of e-PMS in the government organizations in the UAE.

#### (c) The national level

At the national level, this research will contribute to the establishment of systematic electronic performance system that will help in reducing personal biases, and help control the performance and evaluation of an ever-increasing government workforce.

The UAE government is also keen on implementing such systems to speed-up the process of performance management and to reduce the role of 'Wasta', which is the Arabic word for connection (Tlaiss and Kauser, 2011).

#### **Contributions of the research**

This research study will contribute to the literature as follows:

- 1. This research will provide better understanding of e-performance management systems in countries like the UAE.
- 2. The research model presented in this study will significantly contribute to the understanding of cultural elements in the implementation of such systems in a society such as the UAE.
- 3. This study will bring significant knowledge to the researcher since it is the first of its kind conducted in the UAE and surrounding countries.
- 4. This is also the first study of its kind that touches on the cultural aspects of eperformance within governmental organizations anywhere in the Arabian Gulf. This research study enlarges our understanding and provides validation of cultural norms such as 'Wasta' or connection, personal ability of government employees to deal with electronic systems, and adaptability to change.
- 5. The results from this study will show that processes within governmental organizations in the UAE are greatly influencing performance assessment. Such findings are also applicable to similar governmental organizations in neighbouring countries such as Qatar, Bahrain, Oman, and Saudi Arabia. The findings of this study will be highly beneficial to governmental organizations in these countries as they enjoy similar cultural norms and similar growth in the number of government-based organizations.

#### **1.7 Dissertation outline**

The structure of the present research is based on the methodology described by Phillip and Pugh (2000). The dissertation consists of four elements: (1) background theory, (2) focal theory, (3) data theory, and (4) novel contribution. The background theory is presented in Chapter 2, setting the scene by means of a literature review

on the area of e-PMS. Focal theory is put forward in Chapter 3 by means of the conceptual model. Data theory, that is, the justification of the research stance used, the validity of the methodology followed, and the data collection used to accomplish the research aim, are described in Chapters 4 and 5. The novel contribution of this research to the discipline is discussed in Chapter 7. The chapters are summarized below.

#### **Chapter 1 Introduction**

This chapter introduces the main area of research, providing a background to the research domain and its importance in the area of e-PMS with particular focus on the context of the UAE. The aims and objectives of the research are stated, and the structure of the thesis, along with brief overviews of each chapter, is presented.

#### Chapter 2 Literature Review

In this chapter, the background theory is presented through a literature review in the area of PMS and e-PMS with a particular focus on the UAE. This chapter compares and contrasts the available literature that relates to the topic of investigation in this study; and concludes with a literature review on the interactive relationship between the human and the machine.

#### **Chapter 3 Cultural Theories**

This chapter presents and discusses various cultural theories related to human behaviour, norms, and human interaction. These theories are vital to the understanding of human culture, behaviour, and human interactions.

#### Chapter 4 Research Methodology

The third element of this thesis is the data theory. The data theory needed to address issues relating to the choice of research strategy and the development of research method that explains the research design and detailing hypothesis, methodology, questionnaire analysis, and the statistical study used. This chapter discusses the method of research employed in the study, which includes research

strategy, description of the variables to be measured, sampling, method of data collection, and method of data analysis.

#### **Chapter 5 Research Model and Hypotheses**

This chapter illustrates how taking the Technology Acceptance Model (TAM) as a base model for this research can help to determine e-performance in the context of UAE governmental organizations. TAM proposes two important variables that affect user intention which are perceived ease of use and perceived usefulness.

#### **Chapter 6 Data Analysis and Results**

This chapter presents and analyses the empirical data collected from the empirical work. The chapter introduces the statistical distribution and demographic frequency distribution of the subjects. The results of the instrument validation tests are presented. The regression analysis model is presented and the results of the analyses are provided. The analysis of the responses obtained was done using SPSS software version 12.

## Chapter 7 Proposed Performance Appraisal Systems for UAE Governmental Organizations

The aim of this chapter is to present an e-performance model based on the results and analysis generated from the previous chapters. The proposed system is derived from the analysis, investigation, and literature review.

#### **Chapter 8 Conclusion**

This chapter summarizes the research presented in this thesis. The novel contributions are identified in this chapter. The chapter highlights the findings derived from the data analysis, links it with the relevant literature, and the recommendations for future research are also highlighted. This chapter also describes and discusses potential areas for further research.

#### **CHAPTER 2**

#### LITERATURE REVIEW

#### **2.0 Introduction**

The essence of performance management systems is a shared process between managers and the people they manage based on the principle of a psychological contract (Armstrong, 2000). Philpott and Sheppard in Armstrong (2000: 5) state the purpose of performance management 'is to establish a culture in which individuals and groups take responsibility for the continuous improvement of business processes and their own skills and contributions'. Caligiuri (2000) contends that employees need to be evaluated, rated, and given feedback on how they performed against their goals and the company's goals. This is supported by Welbourne (2003) who believes that in order for employee engagement to be a success, organizations need to measure employee engagement frequently and in multiple ways.

Incentives and rewards need to be aligned with the achievement of personal, departmental and company goals. McCormack and Jones (1997) define an incentive as 'a way of motivating our employees to perform at a level that is above what we expect as normal'. Performance management is the primary means of evaluating employees and providing feedback to them. Given the close link between the employment relationship and obtaining employee commitment to living the brand of the organization, the implication is that for employee branding to be a success performance management practices need to be evident.

The complex and ever-changing global environment requires flexibility. The organization's ability to devise strategic responses, however, may be constrained by a lack of suitably trained, internationally oriented personnel. Fryer et al. (2009) defined need assessment as an effort to analyse and diagnose the organization, task, and person, to determine if a cure is necessary and what cure is most likely to produce the desired results. Anderson (1993) and Roscoe (1995) highlight the need of analysis as a systematic attempt to identify current and future organizational

performance needs. It is true that the problem is implicitly identified and assumed that the organization's performance issues are based on problems, which are usually not well identified or clear.

#### 2.1 Effective performance management

Effective performance management requires fact-based decision-making; one of the first requirements is relevant and reliable data. Government agencies – data at hand – can show the real-world effects of their efforts, and taxpayers can judge the agencies' accomplishments across a range of measures and decide whether they are getting an acceptable return for their tax dollars.

At the other end of the public sector, not-for-profit, spectrum, two Irish academics have proposed an innovative approach to excellence in small, often informal, grass-roots volunteer organizations that includes a healthy dose of measurement. Lawler and McDermott's (2003) stepwise, modular model begins with basic measures such as membership, bank balance, and average attendance, and evolves to sophisticated benchmarking and the tracking of high-level indicators like success in meeting stakeholder expectations.

Organizations in the not-for-profit world approach performance management issues and the collection and use of performance information from a wide variety of perspectives, and for many different reasons. But they all want the same return – better performance.

#### 2.2 Performance measurement in human resource management

Jack Phillips' book Accountability in Human Resource Management (Phillips, 1995) lays out three challenges: the HR function should be integrated with strategic planning and operational frameworks; HR staff should build relationships with other key managers, particularly operations (line) managers; and HR practitioners should continuously improve how they measure what they do. Within this context, attention to human resources (HR) performance is more critical in not-for-profit organizations, whose human costs (payroll, benefits, training, and development) can account for

more than 75% of overall costs, and whose human assets directly affect performance, compared to capital-based organizations whose human costs may be less than 15% of total costs, with a less direct impact on performance. HR metrics are likely to be your first priority (Tung, 1984).

The concept of strategic human resources management (SHRM) is well established in business literature. It refers to ongoing efforts to align an organization's personnel policies and practices with its business strategy. The recent interest in SHRM reflects a growing awareness that human resources are the key to success in both public and private organizations. Yet, despite this growing awareness, the relevance of SHRM to public organizations is far from clear. Government agencies rarely operate in competitive markets and thus do not develop business strategies in the same sense that private organizations do (Boxall and Purcell, 2003). And because they function within larger systems of authority, they do not enjoy the same degree of autonomy that private organizations do to alter their personnel policies or provide performance-based incentives to employees. Given these inherent differences, SHRM cannot be transferred successfully from the private to the public sector without tailoring its design and implementation to the unique characteristics of public organizations (Boxall and Purcell, 2003).

At present there remain many unresolved issues about what modifications are required and the probabilities of their success. If HRM is to succeed in fundamentally altering the role of the personnel department and the practice of public personnel management, greater clarity is required regarding the concept of HRM and how it is to be implemented in public organizations (Ramlall, 2003). The main areas where issues need to be tailored and differences resolved include:

#### 2.2.1 Procedural and structural issues

Human resource management should be viewed as a continuous process of determining mission-related objectives and aligning personnel policies and practices with those objectives. The personnel department plays a strategic role to the extent that its policies and practices support accomplishment of the organization's

objectives. Key components include analysing the agency's internal and external environments, identifying the agency's strategic objectives, developing HR objectives and strategies consistent with the agency's goals (vertical integration), and aligning HR policies and practices with each other (horizontal integration) (Scullion and Starkey, 2000). For this conceptual understanding of SHRM to be implemented successfully, certain structural and procedural requirements must be satisfied. These core requirements include the following:

- An established strategic planning process.
- Involvement of the HR director in the strategic planning process and full consideration of the personnel-related implications of the strategic objectives or initiatives under discussion.
- A clear statement, written or unwritten, of each agency's mission and the strategic objectives to be achieved in pursuit of the mission.
- The vertical alignment of personnel policies and practices with an agency's mission and strategic objectives, and the horizontal integration of personnel policies and practices with each other.
- A personnel office whose organizational role and structure are consistent with and contribute to the attainment of the agency's mission and strategic objectives.

These prerequisites capture what is required to integrate strategic planning with human resource management in a way that enhances organizational performance. Such integration is difficult to achieve, for example, if there is no strategic planning process in place, no participation by the personnel director, and no subsequent development of personnel initiatives designed to support identified objectives. These prerequisites are explored below, along with unresolved issues about how to fulfil them in governmental settings (Scullion and Starkey, 2000).

#### 2.2.2 Alignment of HR policies and practices with strategic objectives

Although external actors set their mandates, agencies still must interpret those mandates, clarify their missions, and seek agreement among key stakeholders regarding how their missions will be carried out. Statements of strategic objectives, written or unwritten, emerge from these decision processes. The core requirement of

SHRM is the alignment of personnel policies and practices with the agency's strategic objectives. Although many examples of alignment have been reported in the literature, no classification system has yet been proposed to capture how alignment is accomplished. In general, the reported examples tend to fall into one or more of the following categories:

#### 2.2.3 Adapting to environmental change

This category includes actions taken by the personnel office in response to external events or trends, such as budget cuts, tight labour markets, changing demographic characteristics of workers, and new technologies. During a period of retrenchment, for example, the personnel office can help managers communicate to staff members the reasons behind staff cutbacks and how they will be accomplished, develop and introduce an early retirement incentive programme, counsel those who must be laid off about alternative job opportunities, provide stress management programmes for those anxious about their jobs or struggling to cope with increased workloads, and explore the use of temporary or contract employees to ease workload burdens. Adaptive responses of this kind may or may not be guided by a formal statement of agency objectives.

#### 2.2.4 Changing organizational culture

Many public organizations have followed their private sector counterparts by reinventing and re-engineering themselves. Major reform initiatives often require new organizational cultures, cultures driven by different values and requiring different behaviours. Adopting a 'customer-service' orientation, for example, has become a common strategic objective in both the private and public sectors. The personnel office can help develop a shared commitment to service quality and customer satisfaction through its employee orientation sessions and training programmes. It can also redesign performance appraisal and incentive systems so that employees are rewarded for emphasizing quality and customer service. The personnel office can undertake similar efforts in agencies seeking to move from a process-oriented to a results-oriented culture.

#### 2.2.5 Preparing employees for change

Staff members often resist the implementation of major reforms because of implicit or explicit threats to personal security. Thus, in addition to taking steps to develop a new organizational culture, the personnel office can also take steps to prepare employees for impending changes. It can, for example, encourage managers to involve employees in the design and implementation of the new programme or reform initiative, help communicate the purposes behind the changes and the benefits to be derived from them, and provide additional training opportunities so that staff members are prepared to function successfully under the new order.

## 2.3 Human resource management in the public sector

No one can deny that there are inherent differences between the private and public sectors. Government agencies rarely operate in competitive markets and thus do not develop business strategies in the same sense that private organizations do. Moreover, they function within larger systems of authority and they do not enjoy the same degree of autonomy that private organizations do to alter their personnel policies or provide performance-based incentives to employees. Some scholars and practitioners of the public sector have questioned the validity of corporate management approaches in a governmental context, arguing that the two sectors are different, and therefore call for different management approaches (Jarrar and Schiuma, 2007). They point to the distinctive political, ethical, and organizational dimensions of public administration, and question whether concepts useful for business are also valid in government.

Given these inherent differences, some concluded that HRM practices 'cannot be transferred successfully from the private to the public sector without tailoring its design and implementation to the unique characteristics of public organizations' (Jarrar and Schiuma, 2007). However, it is also argued that the private and public sectors are not two distinct and internally homogeneous domains. Very few organizations are purely public or purely private – most sit somewhere on a continuum between these two extremes (Johnson and Scholes, 2001). In fact, several of the main dimensions of difference are vanishing; the private sector is now

forced to worry about issues like society and environment, things that were formerly mainly the work of public organizations. On the other hand, public organizations are under pressure from private competition in various sectors like health care, postal services, transport, etc. and are becoming under more and more pressure to look at cost efficiency and justify existence continually (Johnson and Scholes, 2001).

#### 2.4 Performance appraisal as a method for measuring performance

Organizations rely on performance appraisals for making many organizational decisions. Organizations use appraisal information to make decisions about employee development, motivation, promotions, and terminations. Hence, the information gained through the performance appraisal process has critical implications for both the individual and the organization (Employment Review, 2003). Because there is great importance placed on appraisal information, it is important to note that performance measurement typically relies on subjective measures, and therefore is subject to distortion.

Performance appraisal methods and mechanisms have been used by public sector organizations over a long period of time to evaluate the performance of the employees working in organizations. Rigid performance appraisal processes used for evaluating employees have their shortcomings and most organizations are looking for other means to effectively evaluate the employees' performance. Performance appraisal has also been called an audit function of an organization regarding the performance of individuals, groups, and entire divisions. Performance appraisal systems aim to fulfil the features of modern performance management concepts, paving the way for major changes in the work culture of the public sector. Dowling et al. (1994) explain that appraisals range from official, prescribed meetings between an evaluator and evaluatee to casual, change occasions where an evaluator observed work activities and indicated his or her assessment with an informal comment. Appraisals regularly record an assessment of an employee's performance, potential, and development needs. The appraisal is an opportunity to take an overall view of work content, loads and volumes, to look back on what has been achieved during the reporting period, and agree objectives for the next.

The attributes of effective performance measures and measurement systems include the need for measures to relate directly to the organization's mission and objectives, to reflect the company's external competitive environment, customer requirements, internal objectives, and the explicit need for strategies, action, and measures to be consistent. The introduction of financial performance measures, such as cash flow and return on investment, reflect the changing marketplace in which organizations competed (Frayne and Geringer, 2005). Objective performance measures have the benefit of being easily quantified, objective measures relative to job performance. They may include production data (how many units were produced, how many errors were committed, the total dollar value of sales) and employment data (tardiness, absences, accidents). Frayne and Geringer (2005) explain that although these measures appear to be desirable, they do not focus on the behaviour of the employee and are often impractical and unsuitable for appraisal purposes.

Subjective measures attempt to directly measure a worker's behaviour. However, since they depend on human judgements, they are vulnerable to a whole host of biases. Johnson and Scholes (2001) state that the subjective measures include relative and absolute ranking systems, behavioural checklists, forced-choice systems, critical incidents, graphic rating scales, and behaviourally anchored rating scales.

When performance appraisal information is intended to be used for developmental purposes, employees receive concrete feedback about their job performance. This serves a valuable function because in order to improve performance in the future, employees need to know what their weaknesses were in the past and how to correct them. This also enables supervisors to identify which employees would receive the most benefit from additional training (Johnson and Scholes, 2001).

## 2.4.1 Frequency of appraisal

Employee reviews should be performed on a frequent and ongoing basis. The actual time period may vary in different organizations and with different aims but a typical

frequency would be bi-monthly or quarterly. By conducting reviews frequently two situations are eliminated:

- Selective memory by the supervisor or the employee; and
- Surprises at an annual review.

People generally tend to remember what happened within the last month or high profile situations (good or bad). Frequent reviews help eliminate the effects of this, generally unconscious, selective memory (Lee, 1991). Eliminating surprises in the appraisal process is also important. Both the supervisor and employee need to know that there is a performance problem prior to any major annual review. The longer a problem is allowed to continue, the more difficult it is to take corrective action. Frequent performance appraisals should eliminate the surprise element and help to modify performance prior to any annual review. If there is a good relationship between supervisor and employee, informal reviews of an employee's performance may be undertaken almost continually. Poor performance should not go unchallenged just because the quarterly review is not due for two months. Frequent reviews also allow for clarification and revision of objectives. This leads to better-informed employees who are better equipped to perform their job satisfactorily.

Sahl (1990) explains that in addition frequent reviews give supervisors more opportunity to assure that progress is being made in developmental objectives. Job demands can frequently prevent employees from achieving specified objectives. In this case the supervisor must either re-assign work to allow the completion of this objective or modify the objective to reflect the changing conditions of the job.

Scullion and Starkey (2000) add that another key to ensuring the effective use of a performance appraisal scheme is keeping and maintaining accurate records of employees' performance. Carefully maintained, they establish patterns in an employee's behaviour that may be difficult to spot via incident-by-incident supervision. Careful review of the records helps avoid the selective memory mentioned earlier and helps plot appropriate actions. Of course, well-maintained

records are essential if the need arises to discipline, demote, or dismiss an employee.

It is particularly helpful if employees are themselves responsible for part of the process of record keeping: this helps reinforce the fact that a major part of the process is devoted to employee development – and that employees have a responsibility for their own development. Such an approach to dual documentation also helps to eliminate surprises. In many systems, the front-line supervisor is responsible for conducting the performance review. However, a multiple appraiser system should be considered since it provides a form of 'triangulation', resulting in ratings in which employees and managers have greater confidence (Tung, 1984).

## 2.4.2 Multiple appraisal and 360-degree feedback appraisal

Multiple appraiser systems can be computerized to allow statistical analysis to identify bias – this can be particularly important where an organization is keen to avoid real or perceived bias with respect to race, gender, or age. Upward appraisal gives employees the opportunity to comment on the performance of their manager and may provide a more balanced view of the individual's performance. 360-degree feedback potentially offers a wider view of the individual's performance by taking into account comments from several sources such as peers, subordinates, other managers, and possibly customers (Turban and Dougherty, 1994).

Rettab et al. (2009) explain that for the appraisal of competencies, there is a tendency towards the use of multi-rate or 360-degree appraisals of performance (especially manager performance). The use of these methods is based on the idea that the judgements of several different rates work better than the judgement of just one (supervisor) rating. Another advantage of multiple appraiser systems is that they can shift the supervisor's role from that of judge to performance coach. An individual supervisor will no longer be responsible for a single employee's review. This in turn lifts the burden of 'policing' from the supervisor and allows him or her to focus on coaching and developing the employee.

Edwards (1996) explains that it may be necessary to restrict the number of employees appraised by any one individual – especially in today's new, flatter organization in which spans of supervision may be 60 people or more. Many organizations are moving towards flat organizations with large spans of control. With large spans of control, several supervisors may work with an individual employee. The input from all supervisors about the employee's performance is required to complete a thorough performance review. The use of these methods is based on the idea that the judgements of several different raters work better than the judgement of just one (supervisor) rating. Both the development and appraisal of competencies are built on the same foundation. That is, they both make use of one crucial aspect in human functioning, namely the ability to perceive.

Some multiple appraiser systems go as far as involving the use of subordinates in the evaluation process. This is especially effective in a self-governing work environment. Subordinate evaluations have generally been shown to be more accurate than supervisors in truly reflecting employee performance. This evaluation system allows employees to participate in the decisions that affect them directly. Cole (2000) explains that as part of the overall process, employee self-appraisals should be encouraged. This helps the employee to be less defensive and passive in the appraisal review. Self-appraisals can lead to self-improvement. The employee's self-appraisal can also be helpful for the supervisor in opening a communication link and allowing for comparison of performance results. Self-appraisals will give the supervisor helpful insight as to how the employee views his or her performance. Generally speaking people will be at least as tough on themselves as the formal appraiser. Cole (2000) say that a proper process of employee and supervisor (or multiple rates) review can help employees agree on areas for development and how the organization can help.

The development of managers and employees is only useful when people, in their day-to-day working environment, perceive competencies in the same way. Also, the appraisal of competencies is only possible when all raters perceive the same competencies in the same way. Up to now little attention has been paid to the consequences of dissimilarities in competence ratings for individual career

development and the implications of it for training and development in organizations (McCormack and Jones, 1997).

# 2.5 Issues in organizations for a proper performance appraisal system

Torrington et al. (1997) state that performance appraisal has a poor track record, but it has considerable potential when done well. They add that renovation of a performance appraisal procedure can transform an enterprise from a best-effort environment to a results-driven climate. If a company is going to survive, let alone prevail, in the competitive climate that all face, performance appraisal, more than any other technique, has the power to generate incredible and sustained change throughout the organization.

# 2.5.1 Purpose of promotion

Taylor and Wherry (1951) explain that performance appraisal ratings are greatly influenced by the performance appraisal purpose. They hypothesized that performance appraisal ratings obtained for administrative purposes, such as pay raises or promotions, would be more lenient than ratings obtained for research, feedback, or employee development purposes. Managers prefer to avoid rating their subordinates because the atmosphere around the process is one of apprehension, and the ratings tend not to differentiate among most employees (rating distributions tend to be negatively skewed) but rather to single out those who completely failed their task.

The only meaningful feedback is negative feedback because it stands out against the norm and creates a threat. The reaction to such feedback may be moderated by task difficulty and the amount of threat. As subjective task difficulty increases and consequently the expectancy of success decreases, the motivation to improve decreases; whereas as the amount of threat increases and consequently the valence levels increase, the motivation to improve increases. It appears that in such cases employers are playing with a delicate balance between the positive effect of failure on

#### 2.5.2 Lack of commitment – ignoring the outcomes

Organizational, social, and personal factors influence the employees' declining commitments. The employees feel unsuccessful when they experienced low feelings of efficacy and low feelings of community; teachers' commitments shifted or declined. However, the impact of negative experiences on commitments is far from uniform. Fresko et al. (1997) explain that commitment is crucial to effective organizations, teacher satisfaction, and retention. They suggest that low levels of commitment may result in decreased achievement, higher teacher absenteeism, and increased staff turnover.

Lawler (1986) acknowledged that raters are reluctant to 'play God', and therefore rate uncritically and leniently in order to avoid the ramifications of a deserved but harsh appraisal. Lawler (1986) also states that supervisors may also inflate ratings so as to ensure valued rewards for their subordinates. Padgett (1998) adds that supervisors also inflate the ratings to avoid confronting a problem employee. Hauenstein (1992) notes that the major problem with performance evaluations today is that employees are all given good ratings, even though employees are subject to different resources, leadership styles, and tasks.

With developmental feedback the supervisor becomes more of a 'coach', which thereby facilitates honesty and candid feedback. DeNisi et al. (1984) also agree that raters will be more willing to give poor, but presumably more accurate evaluations when the ratings are to be used for counselling and feedback, rather than for administrative purposes. The ratings collected for administrative purposes are significantly higher than ratings collected for feedback or research purposes Subjectivity and biases may contribute to such discrepancies. They distance themselves physically and psychologically from their work communities, decrease behavioural involvement, and experience feelings of helplessness, their powerlessness, social and cultural alienation (facilitated by intra-organizational competitiveness, and value incongruence), conflicts. self-betrayal, and worthlessness). The teachers' feelings of alienation were often reinforced by different phenomena, such as the emergence of countercultures (facilitated by the formation

of cliques), the employees' increasing tendency to dwell on their negative experiences, and their search for validation.

In revising the performance appraisal process researchers and practitioners alike were frustrated by the negative effects of both merit-rating and management by objectives (MBO), which focused either on aspects that the individual could not change (e.g. personality traits) or solely on the end results (e.g. objectives) to the exclusion of the process in between. Others argued that 'there were many things wrong with most of the performance appraisal systems in use' because they were 'subjective, inconsistent, lacking in communication and lacking in training', and urged that performance measurement be viewed not 'as a product' but 'as a process'' involving both people and data.

#### 2.5.3 Bureaucratization – paperwork

Making and carrying out employment decisions are the fundamental goals of administrative decision-making. Administrative decisions include deciding which employees to promote, which to terminate, which to discipline, which to transfer, and so forth. Cummings et al. (1993) conclude that performance appraisals used for administrative purposes serve as a key input for administering a formal organizational reward and punishment system. They say that it is an important distinction because the goals of the appraisal should be considered before choosing a training programme. Another important distinction between developmental decisions and administrative decisions are the consequences associated with each type of decision.

Williams et al. (1985) explain that the consequences of a rating vary as a function of the purpose for which the appraisal is to be used. In particular, consequences that accompany an administrative decision are more serious than the consequences that accompany a developmental decision. When performance appraisal information is used to decide which employees should be terminated, the rater may incur more pressure to inflate the ratings.

Betcherman (1999) explains that the pressures for restructuring within all the firms studied were associated with increased competition due to globalization, deregulation, and/or privatization, overlaid with a revolution in production technologies. In the firms studied, there were several common themes, including increased flexibility in work organization, increased employee and union involvement, the introduction of performance-based pay, and greater training: all of which were designed to enhance flexibility and/or reduce costs. Betcherman (1999) cited the following commonalities running through the restructuring of firms:

- The explicit adoption of a differentiation-based business strategy with a focus on production, innovation, and quality, together with a rationalization of business activities.
- The transition to a strategic approach to HR/IR.
- Technological change and a reorganization of the work process as drivers of HR/IR innovation.
- HR innovation falling more into the 'lean' model than the behavioural model.
- A new emphasis on skills training.
- A reorganization of the labour-management relationship initiated by management.
- Recognition that innovation will require negotiation with the union, essentially accommodating more job security for greater operational flexibility.

Betcherman (1999) further argues that the dual approach of implementing highperformance work practices such as employee involvement, skills training, variable pay, and flexible job designs in tandem with a rationalization process involving reengineering, downsizing, outsourcing, and greater reliance on contingent employment may be a rational strategy for an effective response to the immediate demands.

# 2.5.4 Need for improved coaching and training

Cole (2000) adds that pointing out strengths and weaknesses is a coaching function for the supervisor, while receiving meaningful feedback and acting upon it is a motivational experience for the subordinate. In this way, performance appraisals serve as vehicles for personal development. Hence, the ultimate goal of developmental feedback is performance improvement.

Another reason for failure in coaching is a lack of commitment on the part of participants. Many organizations do not address this problem. Although executive coaching may sound like a great idea, many people are not open to getting feedback and coaching (Cole, 2000). The organization can risk a great deal of time and money when there is little real engagement on the part of participants. There cannot be behavioural change without effort. Effort requires that the individual be motivated (Gerhart, 1999).

Training, then, can be seen as a natural complement to work arrangements that provide increased opportunities for employee participation in decision-making. Collective incentive schemes, such as profit sharing and gain sharing, and individual incentive schemes, such as pay for knowledge and compensation for suggestions, are seen as complementary pay devices, which encourage employees to commit themselves to the goal of improving company performance. Gerhart (1999) explains that such payment arrangements promise employees a share of the increased returns from their enhanced effort.

# 2.6 Role of information technology in performance management

Information technology (IT) usage is increasingly becoming a source of sustained competitiveness and an opportunity for improvement. The key drivers for IT adoption are in the interactivity and easy access of supply chain information, financial interactivity, strategic planning approaches, enhanced customer and market approaches, and increased competition (Wiedenbeck, 1999). It should be noted here that the effective uses of technology as the medium of coordination (or integration)

among and within organizations have received much attention in recent years but with little deployment and /or adoption.

Adoption of e-commerce has evolved from rudimentary simple website construction applications to more sophisticated customer service and personalization models (Wells et al., 2007). Initial e-commerce applications by the dot-com companies sought growth as a primary goal while profit considerations were viewed from a longer-term perspective. However, later applications involving brick-and-click companies emphasized competitive advantages and profit considerations and the strategies to achieve these goals (Evans, 1999).

Organizations must formulate the e-commerce strategies that consistent with their competitive strategies (Evans, 1999). Widely accepted competitive strategy is offered by those who distinguish between cost leadership classifications and a hybrid strategy; the latter combines of cost leadership and differentiation strategies- that often yield multiple sources of competitive advantage (Jarrar and Schiuma, 2007, Stacey, 2005. Cost leadership tend to grow by offering lower prices than competition, create a stable domain, and rarely seek new market opportunities (Stacey, 2005).

E-commerce strategy focused on customer base expansion is more likely to be adopted by the organizations pursuing differentiation and hybrid competitive strategies rather than cost leadership strategy. Cost leaders rarely scan the environment for new opportunities, have lower risk-taking propensity, and focus mainly on defending their turf. The organizations pursuing differentiation and hybrid strategies are likely to adopt e-commerce strategy focused on customer service in parallel with the strategy of customer base expansion in order to achieve superior performance outcomes. Customer service is the bricks-and-mortar factor in business success and e-commerce is not immune to its importance (Taylor and Todd, 1995).

In managing organizational and employee performance, goals are established during the performance review. The manager and employee create and agree on an action and development plan for achieving them. The plan identifies specific steps the employee should take and outlines milestone dates and final deadlines. In other

words, the plan identifies how the individual will work on competencies, behaviours, and objectives to achieve the goals.

Competitive advantage and profit considerations in the adoption of e-commerce are crucial for small and medium-sized enterprises (SMEs) in that they have limited financial slack to experiment with new approaches and limited cushion for failure. A plethora of failure by the pure dot-com companies with unproven business models have constituted a caveat for the bricks-and-mortar companies to exercise due diligence in venturing into e-commerce (Tung, 1984).

# 2.7 E-performance management

Performance management effectively supports key executives and operational management by providing timely and relevant information from both within and outside the enterprise. The many applications for performance managers include:

- corporate performance measurement;
- performance tracking and reporting;
- external benchmarking;
- coordination of internal improvement initiatives/ benefit tracking;
- best practice sharing/ acquisition;
- Knowledge management.

E-performance helps the organization retain and motivate top talent by gaining insight into top performers across the enterprise. By streamlining the performance management process into a Web-based, real-time solution the organization can cut costs. The powerful functionality of e-performance will help realize:

 <u>Flexibility</u>: Configurable templates, easy 360-degree or multi-rater selection, and full global architecture tailor the performance management processes to any employee group to fulfil simple or sophisticated business strategies.

- <u>Embedded intelligence</u>: Integrated performance and competency content, along with a collection of embedded manager tools, improve the quality, timeliness, and effectiveness of feedback to employees.
- Integration: Tight integration with core employee data in the enterprise HRM system which helps the management to achieve true pay for performance, timely learning and development, and career and succession planning. Integration with performance and competency data ensures effective communication (Tung, 1984).

E-performance increases organizations' business success by driving and fostering employee engagement with business objectives in a clear process. This process enables one to identify, plan, observe, improve, and reward performance. The process begins by empowering the employees with clearly identified performance goals and targets. The organizational management can then observe and adjust plans and goals to respond to employee capability or other circumstances such as market conditions or competitive threats. And throughout the process, tools are available to coach employees towards success. If development is needed, eperformance enables learning and career planning processes. Finally, the overall assessment is determined and can automatically kick off related initiatives such as salary increases, bonuses, learning initiatives, or succession plan candidacy (Turban and King, 2003). The eBAS (Figure 2.1) is a performance-monitoring project organized in 2000 and officially launched in 2001 aimed to complement policies to create an e-government for Taiwan, including reorganization and increasing administrative efficiency. With the effort of all staff, the project has helped to shape new dimensions of information responsible for the government's budget, accounting, and statistics. The performance monitoring system connects all offices and staffs in the nation to form an exclusive extranet offering all kinds of digital business applications, information exchanges, and messaging and communications that establish a fast information network between government to government (G2G) and is the first large government extranet in Taiwan.

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#### Figure 2.1 eBAS E-Government Project (E-Government Project, Taiwan, 2001)

The performance planning process can be as simple or complex as one chooses. A straightforward performance review can be determined by managers or HR administrators and simply pushed out to employees; or one can enable a collaborative goal-setting process between manager and employee. This process

can also include the nomination of multi-rate and 360-degree review participants. The functionality for establishing the criteria and enabling multi-source evaluations consists of these process steps:

- Process initiation. The manager, employee, or HR admin can initiate the performance process.
- Criteria establishment. Manager and employee can define performance criteria, such as goals and competencies, to be included on documents.
- Participant nomination. Manager and employee can nominate other participants to provide feedback on employee performance. Nominees can accept or decline the nomination.
- Evaluation creation. Employees, managers, and other participants complete their respective evaluations by rating evaluation items and entering comments.
- Participant evaluation completion/review. Once released by reviewers, the manager views participants' average ratings and consolidates their feedback into the manager evaluation. The manager can optionally make use of the writing tools, comments from other evaluators pertaining to the evaluation, and can average consolidated ratings from other evaluators pertaining to the evaluation.
- Employee self-evaluation completion/review. Once an employee completes a self-evaluation, the manager can review it.
- Manager/mentor evaluation completion/review. The manager completes an employee evaluation; the employee then reviews the completed manager evaluation.
- *Employee review*. The manager sends the evaluation to the employee for review.
- *Manager review*. The manager submits the evaluation for approval.

E-performance encompasses technologies, interactive models, and tools aimed at online learning and development activities including:

- Online performance reviews. Most performance reviews capture the feedback of a single person, but e-performance enables multiple input sources, workflow between different parties, and so forth. This change makes for a broader, richer review.
- Online development plans. A common outcome of a performance review or other intervention, online development plans identify development activities, associated resources, and time frames that outline and support concrete action for the employee. An online development plan includes mechanisms for automatic reminders and other follow-up tools to keep the employee on track.

**E-interaction** encompasses technologies, interactive models, and tools that allow interaction between workers. Email, of course, is by far the most common application. But don't overlook the value of email tools because they are easy to use. For instance, using templates allowed one user to easily send emails to her manager requesting help with specific parts of the development plan.

**E-support** encompasses technologies, interactive models, and tools that provide help with specific tasks. For example, an online job aid might be in the form of a checklist that defines the individual steps of a certain task. The tool might include automatic reminders, prompting the user to complete a task by a certain date.

With the help of the various electronic systems and technologies available, eperformance systems should be an easy-to-use, Web-based, self-service solution built as a self-service application for the managers and employees to:

- Collaboratively plan performance, behaviours, and competencies.
- Link strategic enterprise objectives to employee performance results and goals.
- Track performance progress throughout the performance period.
- Leverage HR writing tools, such as Results Writer, Language Checker, Spell Checker, and Development Tips.
- Rate and weight results and competencies.

- Leverage pre-integrated performance and competency content.
- Track performance review deliverables with alerts and reports.
- Complete assessments for results, behaviours, and competencies.
- View embedded clear graphical reports for such functions as Status Dashboard, Rating Distributions, and Status Summary.

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# Flexible ePerformance The ePerformance self-service solution offers employees the flexibility to manage performance documents.

Figure 2.2 E-performance application from PeopleSoft Corporation

The e-performance system (Figure 2.2) is a competency-based system that measures people not only on goal attainment but also on the very competencies that are required for their role. To ensure success, one can choose to support all employee goals with competencies and competency ratings that will help achieve success. One can quickly see if a candidate has the right qualities for the job, and can give them the training and development they need in order to succeed. The competency library and ratings are stored in the core HRMS system so that other processes such as learning, talent searches, and succession planning can leverage these information and data (Panina and Aiello, 2005).

However, the challenge of identifying each employee's talents, capabilities, and areas for growth to encourage positive contribution and managing poor performance is daunting. Further, most organizations want a single-system solution that works for

all countries, regions, departments, and individuals and can be leveraged globally to deliver consistent messages, foster accountability, and offer reports.

There has been a wealth of research over recent years to define taxonomies of computer systems and their relationships to performance. This research work tends to distinguish between computer systems that were equivalent to the stable and dynamic configurations (see Snow et al, 1992). Also such research work tends to agree that operations involved with different types of computer systems had different performance priorities (Lee, 1991).

As derived from Table 2.1, their performance priorities start with cost, followed by delivery and quality. Cost is determined by the degree of scale economies, capacity utilization, and inventory turnover. Delivery involves performance in lead times and supply reliability. Quality may involve both conformance and performance issues. Lamming et al. (2000) appeared to suggest that stable computer systems aimed at quality 'sustainability' (conformance) levels, which might not be as high as the quality 'supremacy' (performance) levels of dynamic computer systems. These computer systems aim at improving performance in cost, delivery, and quality through eliminating non-value-added activities, producing high volumes of standardized products, and optimizing information and material flows (Lee, 2002).

Norhayati and Siti-Nabiha (2009) particularly emphasized the need to eliminate waste and non-value-added activities to reduce cost and improve delivery across lean supply chains. Scale economies result from producing high volumes under stable demand conditions. In this context, information linkages are established to ensure 'the most efficient, accurate, and cost-effective transmission of information across the supply chain' (Jarrar and Schiuma, 2007).

Dynamic computer systems focus on agility and market-responsiveness. They enable the production of innovative products with short life cycles, such as in emergent industries with rapid technological change. Therefore, their major performance priority is flexibility, followed by quality and delivery. Flexibility includes abilities in customizing products, changing the product mix, and operating profitably in any volume of output (Huang et al., 2002). Delivery includes both reliability and

lead-time performance. Quality performance (supremacy) appears to be more of a priority than in stable supply chains (Lamming et al., 2000). In dynamic computer systems, performance in flexibility, quality, and delivery is achieved through adopting build-to-order and mass customization practices across the value chain, using information technology for speedy transfer of orders to factory or customization centres, and developing agile processes to enable fast response to demand changes (Lee, 2002). In contrast to stable computer systems, which focus on inventory reduction through lean techniques, dynamic computer systems maximize delivery speed through building buffer stocks of raw materials, components, or product modules across the value chain (Huang et al., 2002). According to Lee (2002), the Internet would provide the best channel to enable timely communication across the dynamic supply chain.

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*Figure 2.3* The unique location of the UAE in the Middle East (National Bureau of Statistics, 2011 *Report*)

## 2.8 Performance appraisal system in the United Arab Emirates

The United Arab Emirates is situated in the east of the Arab world (Figure 2.3). It overlooks the Gulf of Oman to the east and the Arabian Gulf to the north. The UAE is thus positioned at an important junction in the world of trade.

The UAE is an oil-rich desert country situated in the southeast of the Arabian Peninsula. In 1971, the former Trucial States of the Arabic Gulf coast, Abu Dhabi, Ajman, Fujairah, Sharjah, Dubai, and Umm al Quwain merged to form the United Arab Emirates and was joined by Ras al Khaimah in 1972. The UAE is the third largest oil producer in the Arab Gulf after Saudi Arabia and Iran (United Nations, 2010). Oil and gas are the Emirates' main industries, and underpin the country's considerable prosperity. Although average annual revenues have declined in line with low prevailing world oil prices, the UAE has had sufficient funds to invest in major industrial and infrastructure-related projects. Outside the oil and gas sector, which includes refining and the production of oil-derived chemicals, most economic activity is government sponsored, and designed to diversify the economy and reduce dependence on oil. This strategy has been reasonably successful and the oil sector's contribution to GDP is now down to about 50% (United Nations, 2010).

Chemicals, aluminium and steel production are the most important of the new industries. Other newly established industries produce consumer goods for the domestic market. There is some agriculture, mostly livestock rearing, in what is an unfavourable climate; fishing is also significant. Most of the country's economic development has been concentrated in the two richest and most powerful of the seven Emirates, Abu Dhabi and Dubai; the remainder are relatively underdeveloped (United Nations, 2010).

The UAE is a member of OPEC, and of the Gulf Cooperation Council (GCC) that is increasingly concerning itself with regional economic collaboration with the neighbouring Arab nations. Plans to establish a customs union among the six member states are well advanced, and the GCC has sought advice from the EU on the creation of a single currency. Imports into the UAE are dominated by the Japanese (the main buyer of the Emirates' oil and gas) followed by the USA, the UK, Germany, and Korea (IMF, 2011).

The population of the UAE has been directly influenced by the rapid development witnessed by the country in recent years. The population increased from 557,887 when the first census took place in 1975 to an estimated 3,448,000 in 2001. The

UAE has one of the highest population growths in the world, standing at more than 7% over the past 10 years. It was as high as 20% during the oil boom between 1970 and 1980, when thousands of expatriates began streaming into the Emirates for jobs emerging from a massive construction programme kicked off by the UAE (United Nations, 2010). Abu Dhabi's population in 2003 was around 942,463, which make 39% of the total population of the UAE. Dubai follows closely with 689,420, which is around 28% of the population of the UAE (United Nations, 2010).

Since 1970, the UAE has provided various job opportunities for many expatriates. At present, there are more than 150 nationalities in the UAE with the highest percentage being from Asian and Arab countries in addition to nationalities such as Africans, Europeans, Australians, Canadians, and Americans. Many expatriates, especially those coming from underdeveloped countries, repatriate part of their income to their home countries, which has effectively contributed to their national income and helped in socio-economic development.

The development and training of UAE nationals is a major focus of government policy. Thirty-two per cent of the UAE population is under the age of 18 years and the majorities in these age groups are UAE citizens. Due to this there is an urgent need to create employment opportunities. This is coupled with a recognition that high quality training is essential if the country's growth is to continue. Besides conventional training opportunities in institutes of higher education, industry-based training is growing rapidly in the oil industry and other organizations. A special cabinet manpower committee supervises the development of UAE's human resources, with the objective of maximizing local employment and reducing dependence on expatriate labour.

There is a distinct shortage of relevant academic papers that target the issue of governmental e-performance systems and similarly there are hardly any papers on e-performance in a UAE (Arab) context. Much of the literature is only semi-relevant, as it fails to address the important factor of the UAE cultural and social environment, and the overarching problem is that much of the academic literature is based on Western examples.

Of relevance were Panina and Aiello's (2005) study, which acknowledges that national culture is a defining factor in the success of e-performance systems, and that this factor should be fully considered when designing and implementing any such performance system. Panina and Aiello (2005) highlight that national culture does affect performance systems. While their paper initially appears to be highly relevant, a number of methodological issues actually reduce its significance for this research. First, it is based on a literature view and therefore there is little primary field data to prove and support a culturally aware e-performance model, which the authors themselves confess (Panina and Aiello, 2005). Second, the paper does not directly acknowledge Arab culture in its review, and this therefore limits its use in this particular research – Panina and Aiello (2005) base their research on Hofstede's (1997) cultural framework, which does not make any mention of Arab culture, and has also been heavily criticized by many as being an inadequate framework (Panina and Aiello, 2005).

Ramlall (2003) studied the effect of e-performance systems on governmental staff members in Greece, and found that while it did indeed improve employee performance, it also simultaneously caused negative behaviour such as deception, as employees felt very exposed and under pressure to perform due to the eperformance system which they seemed to be threatened by. This study is supported by high quality field data. However, a number of methodological issues reduce the pertinence of Ramlall's work to this research as it uses the social constructivism paradigm to analyse and interpret the results, and because this type of paradigm closely links the sample to its social context, this means that the results are context-specific to Greece, and cannot really be applied to any different cultural context. Since Greek culture differs profoundly to Arab culture, the applicability of this research is certainly reduced due to its case-specific and ethnocentric nature.

Norhayati and Siti-Nabiha's (2009) work looks at the effectiveness of performance management systems in publicly owned organizations in the non-Western setting of Malaysia, and thus helps to break the trend of ethnocentric and Western bias amongst performance management research. Their research found performance management systems to have a limited effect on Malaysian public organizations'

performance (Norhayati and Siti-Nabiha, 2009) and thus shows that different cultures are likely to respond to performance management systems in relatively different ways. However, despite Malaysia being a predominantly Muslim country (as is the UAE), this Far Eastern country has a culture very different to that of the UAE and therefore its pertinence is reduced. Furthermore this paper looks at performance management systems in general and does not directly tackle the issue of eperformance systems, and this further reduces the usability of this work for the intended research.

#### 2.9 E-performance in the UAE private sector

Although government institutions are still in the development phase, the UAE's private sector institutions are amongst the most developed in the region with state telecommunications giant Etisalat being one of the region's top companies. Through its 34% owned affiliate, Thuraya, Etisalat has its own satellite intended to serve up to 1.9 million users in 49 countries from the Atlantic to the Indian sub-continent and Central Asia. Access to Internet services has been available since 1995 with connection times being continually reduced as Internet connections grow. Now planning to diversify into cable television, Etisalat is also a key partner in the FLAG (Fiber-Optic Link around the Globe) network, the world's longest operating submarine cable system, which links Europe to Asia and the Far East.

On the economic and financial front, progress is apparent in all of Etisalat's key sectors. Etisalat continues enhancing its position as a telecom leader at both the regional and international levels. During 2002 the corporation added over \$299 million to its fixed assets. It continues to invest heavily in the expansion of capacity, development of infrastructure, upgrading of support processes, and testing of new technologies.

The UAE has entered the twenty-first century with a sophisticated telecommunications sector, which provides its citizens with a highly efficient and

cost-effective communications network. As evident from the growth and diversification of Etisalat, the greatest strength is the dedication of its employees and keeping them updated with the latest changes in the telecommunication era. Etisalat has its headquarters in Abu Dhabi and branches in all the seven Emirates and with its many business divisions the company has employee strength of more than 7,000. Etisalat is committed to developing the United Arab Emirates' national workforce as an organizational priority. Etisalat has been repeatedly identified as the best employer within the UAE nationals' community (Etisalat Annual Report, 2010).

In Etisalat, employees are appraised by their immediate managers on the grounds that those who delegate work and monitor performance are best placed to appraise performance. Some argue that if appraisals are carried out at a more senior level, it will give employees an opportunity to talk with higher management who can find out the views and attitudes of more junior staff. A better approach may be for employees' immediate superiors to write and carry out appraisals and for more senior managers to have an opportunity to comment on the report. This enables senior managers to keep a regular check on the progress of staff and to monitor the appraisal system to ensure that reporting standards are consistent (Etisalat Annual Report, 2010).

Positive performance appraisals in the organization can increase teamwork, increase flexibility and place a greater emphasis on the importance of communication skills and relationships with people in the workplace. Upward appraisal gives employees the opportunity to comment on the performance of their manager and may provide a more balanced view of the individual's performance. 360-degree feedback potentially offers a wider view of the individual's performance by taking into account comments from several sources such as peers, subordinates, other managers, and possibly customers. A successful appraisal process needs the backing of the individuals involved and workforce representatives. It is most commonly used with managers and may best be used as a way of helping individuals identify their development needs (Berham et al., 2011).

In Etisalat, the managers who carry out the appraisals are properly trained and have sufficient time and resources available to complete interviews, fill in the forms, and carry out follow-up work. All Etisalat employees are provided with written information describing how appraisal will work and its effect. New Etisalat employees are fully informed about the appraisal system as part of their induction. All Etisalat employees are briefed and told in writing about the overall objectives, how the appraisal system works, and what is expected of them individually (Behery, 2011; Tlaiss and Kauser, 2011).

In Etisalat, an annual timetable is set for the completion of various stages of the appraisal process and is circulated to all appraisers. The Human Resource Department checks that appraisals are being carried out properly and determines whether the system needs to be modified to meet the changing needs of the organization. Feedback from Etisalat managers is obtained in general and in relation to any problems they have encountered. It is also important to get reactions from employees concerning their experiences on being appraised (Abdulla et al., 2011).

## 2.10 The benefits and pitfalls of e-performance

According to Siropolis (1997) businesses are under pressure to prove performance. However, business line managers and workplace learning and performance professionals tend to rely on the same tools and techniques that they have been using for years. The impacts of negative stress, time and knowledge management can compound to create a vicious circle of poor performance in the execution of projects (Kerzner, 2006). There needs to be a proactive approach to stress prevention and effective time and knowledge management that can create the opposite effect: a virtuous circle of high individual and organizational performance (Cole, 2005). E-performance helps to better manage organizational performance drift through efficient and cost-effective performance measurement techniques.

Lawler (1986) argues that the process of developing indicators to assess progress towards certain predefined goals and reviewing performance against measures are often meant to help the organization to achieve and attain a certain strategic targets.

These targets can be the attainment of operational goals, ethical goals, low labour turnover goals, motivational goals, and financial goals. The e-performance system makes the attainment of these goals achievable and sustainable in the long term to make the organization more successful.

The e-performance system highlights the major components that have a great impact on the effectiveness and efficiency of the organizational operations. This can be summarized as follows: the system will improve services delivery; it is achieved by decentralization and institutional restructuring. By decentralization we mean delegation of responsibilities and authorities dedicated to each individual as desired (Cole, 2000). It also can strengthen policy formulation and the control and monitoring process by facilitating communication and the sharing of information between the departments and afterwards between private companies and government departments. As the e-government is introduced the organizational cultures will grow in the public and private sectors (Francesco and Gold, 2005). The organizations will have to attract and retain the necessary qualified people. Using e-performance everyone as a stakeholder has to introduce and use modern budgetary processes. It will also help to fight most of the social abuses like corruption and will promote good corporate governance.

E-performance drives business results by directly linking employee performance and rewards with the organization's financial and business objectives and goal-linking capabilities drive alignment among missions, initiatives, and departmental or individual goals.

However, despite these far-reaching benefits of e-performance systems, it does need to be noted that sometimes these benefits are not always achieved, and this can be attributed to a variety of factors such as culture, implementation method, and the like. Petrakaki et al. (2007) studied the effect of e-performance systems on governmental staff members in Greece, and found that while it did indeed improve employee performance, it also simultaneously caused negative behaviour to emerge such as deception, as employees felt under pressure to achieve. This shows that created a successful e-performance system is a complex feat, and that there is no

guarantee that e-performance systems will be a success, as a variety of facets play a considerable role (such as culture) and thus failure is likely if such factors are not fully considered.

# 2.11 The interface between culture and technology

The study of the relationship between culture and technology has been studied widely in contemporary literature. The importance of the interaction between the two is central to understanding which of the two factors leads to failure of the set objectives. Is it the technological system, or the people? Hence, it is imperative to examine the related literature in this area. Drucker (2008), Hill and McShane (2006), and Norman (1998) suggest that the role of technology systems is to increase task and organizational efficiency, while attaining effectiveness.

Nevertheless, systems users react differently based on their inherited prospective cultural norms and values. Hence, system by design must take such cultural norms into consideration (Choe, 2007). Moreover, Aykin (2007) and Choe (2007) argue that technology is an imposition on human cultures; therefore, a given system must take into consideration cultural norms and mores in order for it to achieve the objectives of its design.

Burton and Obel (1998) go further by suggesting that systems must be designed to serve cultural norms rather than designing standardized systems and assuming they will work for all users in all sets of culture. Myers and Tan (2005) concur with this argument and further suggest that systems by design must accommodate cultural differences since each system user is different and the purposes of design are different for each customer.

Hence, generic systems might be highly efficient and effective in some cultures, but less so in others. Tredinnick (2008) also discussed how various human behaviours and attitudes influence the utilization and ultimately the success of a given system, or its obsolescence. Hofstede (1980) was a pioneer in the interrelation between culture and technology. Hofstede's cultural model presents a platform to academics

and practitioners alike on the importance of the nature of interaction between human and the machine.

Omar (1992) compared people's attitude towards computers in two different countries, the USA and Kuwait. While discovering that people's attitude towards computers is positive in the USA, he suggested that people's attitude in Kuwait and especially amongst women was a negative one. No such study has been done on the UAE before. Kuwaiti culture is closest to the UAE in terms of population, structure, history, and social norms. Both countries are part of the Gulf Cooperation Council (GCC) along with Saudi Arabia, Oman, Bahrain, and Qatar. Utilizing Hofstede's cultural model, the GCC countries including the UAE are considered high-context societies, while US society is low-context. This also leads to the conclusion that attitudes and behaviours towards computer-based applications vary enormously and are greatly influenced by how each society views technology and its usefulness.

Lytras and Carroll (2008), Koumpis (2009), and Leidner and Kayworth (2008) further suggest that language is a key cultural characteristic that greatly shapes human attitudes towards acceptance of a given system design. Information systems that do not take into consideration the user's linguistic abilities or the impact of designer's language in the inherited structure of a system may mean that the system is doomed to fail by users of different languages. Brocke and Rosemann (2009) and Magal and Word (2009) stressed the importance of usefulness and ease of use of information systems design. However, they did not discuss the relationship between cultural differences and the degree of system ease of use amongst various cultures.

Choe (2007) and Myers and Tan (2005) emphasize in their research the relationship between national culture or users' cultural characteristics and a system's ease of use. Usefulness of the system appears to be a given characteristic in all system design. Choe (2007) particularly emphasized the importance of the impact of language, culture, and attitude on perceived ease of use. The above literature highlighted the significance of cultural values, cultural norms, language, and various national attitudes and behaviours for systems design. The intent of such literature is

to stress the uniqueness of each culture in terms of information system utilization and acceptance.

#### 2.12 Chapter summary

This chapter started with a discussion of e-performance in terms of use of electronic methods in every stage of the performance process, from identification of requirements through to payment, and potentially to contract management. The literature presented in this chapter described e-performance solutions as enablers of organizations, whether small or medium, to automate their purchasing process and reduce processing costs. This chapter also elaborated on the discussion of the Technology Acceptance Model (TAM) pioneered by Davis (1989) and Davis et al. (1989) and how TAM was adapted from the Theory of Reasoned Action (TRA). TAM was developed to explain the usage and acceptance of technology such as computer and information technology. This chapter also compared and contrasted various literature related to the topic of investigation in this research study. This chapter concluded with an examination of the relationship between systems design and human culture. Various theoretical and scholarly work, such as Lytras and Carroll (2008), Koumpis (2009), Leidner and Kayworth (2008), Omar (1992), and Choe (2007), suggests that language and cultural characteristics greatly shape human attitudes towards acceptance of a given system design. Brocke and Rosemann (2009) and Magal and Word (2009) also stressed the importance of usefulness and ease of use of information systems design. Failure to understand the relationship between cultural attributes and the perceived ease of use and usefulness of a given system might greatly hinder the utilization and success of a system or might even have a negative impact on an entire culture.

# **CHAPTER 3**

# **CULTURAL THEORIES**

## **3.0 Introduction**

This research also attempts to determine cultural implications for the utilization of eperformance systems in governmental organizations in the UAE. Understanding the cultural forces involved in accepting and successfully implementing technology systems that deal with assessment and evaluation of employees will facilitate the transitional process from manual to e-performance assessment. Del Galdo (1996) suggested that the cultural environment shapes people's attitudes and behaviour. Such human behavioural differences are largely shaped by cultural attributes (Hofstede, 1980). A better understanding of these cultural elements that contributes to the acceptance and successful implementation of new technological systems will reduce resistance and ease the process of implementation.

Many researchers have argued that culture and cultural norms are the key factors in determining human interaction with one another and with technology (Hall, 1976; Hofstede, 1980, 1991; Luna et al., 2002; Trompenaars, 1993; Tsikriktsis, 2002; Singh et al., 2005). Hall (1976) further suggests that family, school, and religious institutions are the primary determinates in shaping behavioural patterns. Hall (1976) and Hofstede (1991) concur that determinates shaping cultural norms are set at early stages of human development and are difficult if not impossible to change. Hence, introducing a system as suggested in this dissertation that changes the way people assess and evaluate one another will have cultural dimensions to it. It is one thing to impose new e-performance systems on governmental employees, yet it is another to ensure successful implementation of such systems in the long run.

# 3.1 Culture and the individual

According to Hofstede (1991) culture is acquired through learning, not inherited. Hofstede also suggests that the surrounding environment influences culture and it is what distinguishes people from each another. According to Hofstede the accumulation of learnt behaviour over time forms the process of mental programming.

Similarly, Del Galdo (1996) defines culture as the accumulation of history, events, and norms acquired from one's environment, which shapes people's values. Del Galdo (1996) further suggests that groups with similar characteristics contain within them sub-groups known as sub-cultures. Culture is also defined by Bourges-Waldegg (2000) as a method whereby social values are defined in terms of tradition, language, religious beliefs, and what are considered to be acceptable actions.

The key similarity between the different views presented above is that culture dictates one's action and leads to the formation of groups that think and behave in a similar fashion. The uniqueness of a given culture is the common similarities in those shared values. The above definitions are applied in this research study for the purpose of better understanding of how cultural characteristics influence one's actions when it comes to the utilization of e-performance management systems. Such understanding will facilitate the process of acceptance and the utilization of new systems since culture tends to be the primary factor in accepting new technological processes (Hofstede, 1980, 1991).

A number of studies conducted by Straub et al. (2001), Loch et al. (2003), El Said and Hone (2005), and Nantel and Glaser (2006) also concur with Hofstede's argument that cultural barriers prevent acceptance of new systems introduced to the workplace. Additionally, Trompenaars' (1993) subjective examination of differences in solving problems amongst people of different cultures provides another platform for understanding culture as classified by Hall (1976) on the bases of universalistic vs. particularistic, neutral vs. emotional, individualism vs. collectivism, specific vs. diffused, and achievement vs. ascription as the foundation of significance. Trompenaars shares common ground with Hall's (1976) and Hofstede's (1980)

description of culture dimensions, all of which emphasize the influence of culture and cultural characteristics in determining not only people's actions but also their acceptance of new processes that might be considered as threat or an opportunity to the group.

# 3.2 Hofstede's five cultural dimensions

Hofstede's definition of cultural dimension is widely relevant to this study. Jones and Alony (2007) concur that Hofstede's work on cultural dimensions is the most influential and widely applied theoretical work on culture amongst scholars and practitioners. De Mooij (2000) argues that the significance of Hofstede's theory is in the applicability of his model to consumption-related values and motives. Pavlou and Chai (2002) agree with this argument by stating that Hofstede's model has been adequately applied to the cross-cultural dissimilarity in adoption and Internet diffusion. Singh and Baack (2004) and Clark (1990) noted that Hofstede's typology emphasizes the suppleness of cultural and communication analysis and does not conflict with other cultural typologies.

Hofstede argues that there are five cultural dimensions to any given society, which govern human interaction:

1. Power Distance Index: PDI suggests that the followers endorse a society's level of inequality as much as the leaders endorse it. The family as the least powerful social institution expects and accepts that power is unequally distributed. There is a strong bond linking all members of society to UAE leaders and decision makers. The fact that there are open channels and venues to inform them of ordinary citizens concerns constitute a relief on their part. Most of these request, demands and needs are supported and alliance with the leaders always triumphs. Such personified attention fostered loyalty that was motivated by tribal values and collective thinking which characterized UAE's social stratums since its establishment in 1971. In recent years democratic procedures have been introduced and people have been

encouraged to participate in the decision making process. The economic contentment especially with their current social status, government supported and elevated life styles.

 Individualism vs. Collectivism: IDV refers to the degree of a person's belonging to the group. In individualism relations between group members tend to be weak as loyalty is primarily to one's self-interest and immediate family members. In contrast, in collectivism, loyalty is primarily to the group (family, company, and nation).

The traditional UAE culture is based on collective existence where processes and moral ethics that are at the core of group function and passed on from one generation to the other. For example, from a young age boys accompany their fathers and other males of their extended family and tribe who teach them how to perform tasks requiring the exhibition of masculinity. Likewise, girls are taught how to become honourable daughters, supportive mothers and contributing member of the group. Outsiders may consider this practice as typical in teaching gender segregation and role play however, if one is to observe the Bedouin life style s/he would realize what motivates such coherence. Blood relations, harsh environment, scarce resources and desire to survive are responsible to dividing roles and setting societal codes. All members of society regardless of their position abide by the set social norms. This assimilation maintained the customs and traditions of the UAE as violators of expected behaviours are severely pointed and ostracized. Decision making is a collective matter whereby a marriage proposal, for example, requires a meeting of relevant members of the group airing their opinions, casting their votes on which the final decision relies. As a result, loyalty to rulers, elderly members of the group, values and principles prevails with no questions asked because the group is assured that the ruler is one of them and leading them according to their collective ideologies.

3. Masculine vs. Feminine: This refers to the degree each gender plays a role in society. It also refers to the perception and expectation from each gender as

far as personal interactions are concerned. UAE social settings view men and women as two complimentary and inseparable nucleus of society. Since the old days of hunting, gathering and grazing men and women worked together with set objectives and satisfactory outcomes. Men were divers, hunters and farmers while women took care of all aspects of family affairs. Since the union of the seven emirates and the creation of the UAE in 1971, education and settlement were mandatory. Thus, rapid economic growth changed the close net of labor division within each group setting and households. Therefore, freshly graduated men and women entered the world of work in steadily increasing numbers. The 1980s witnessed great changes and work took women out of their typical role as daughters, sister and mothers whose sole function is house affairs. Women acquired higher education and their hard work landed them managerial and in some occasions placed them in decision making position. Reaching this point was not stress-free as the burden of trust and changing the old setting was on the women's shoulders. While the UAE is a patriarchal society households share incomes gained by both genders. At work and home women's voices, opinions are heard and that includes their input when marriage is proposed.

The main positively contribution factor to the diffused tension between the genders is due to the endorsement of the late sheikh Zayed and his wife to women's active role in society. Additionally, pioneering women proved themselves and excelled thus gaining the trust of all members of society. Equal paying scale recognized women for their work rather than for their gender, thus gender equity is at the center of women entering the world of work.

Women, by tradition, are mothers and care takers. Some men expect and direct their wives to become housewives after marriage while others, for socio-economic reasons prefer that they assist them with all aspects of households. This is true about other nations in the world, too.

4. Uncertainty Avoidance Index: UAI refers to the degree of tolerance of society members sharing the same cultural attributes towards uncertainty and ambiguity. This also reflects the degree of comfort of group members towards any given situation. A culture that enjoys a high degree of uncertainty avoidance tends to implement rules and regulations to prevent and reduce the levels of uncertainty. Cultures that are more tolerant towards uncertainty tend to be more accepting, realistic, and flexible towards change. This also impacts the level of emotional expression of the individuals towards one another.

Tolerance and especially the local attitude towards those who differed from the indigenous population ethnically or religiously have been one of respect and understanding. Many Africans, Persians and Shiite have been living on UAE soil in recent history and when the union of 1970s was formed they became full-fledged citizens. They are members of UAE political and religious settings and no molestation have been reported about them. The UAE practices freedom of speech, granted that it remains objective, away from chaos and deliberate agitation and that dignity is restored. There are many charges and Hindu temples for people to practice their religion. Additionally, regardless of what political occurrences elsewhere the UAE environment foster peace and tolerance thus people do not engage in destructive or violent acts as a mimic. This is evident in the late developments with UAE islands in disputed with Iran, UAE prefers dialogue and political solution rather than confrontation and violence.

5. Long-Term Orientation vs. Short-Term Orientation: LTO/STO, or the fifth dimension as it is also known, refers to perseverance and values associated with long-term and short-term mindset. This has a lot to do with beliefs about the way one should live, view life, work, spirituality, and existence.

The Short-Term Orientation in the UAE is one directly correlated to acquiring education, respected work position, owning a house, a care and getting married while the Long-Term Orientation is connected with spirituality and devotion to Allah. Therefore, young people are adventurous and outgoing

while the older generation is retired and enjoying their religious practices habitually.

Hofstede's cultural dimensions support Donthu and Yoo's (1998) and Furrer et al.'s (2000) argument that cultural attributes influence the hierarchal relationship between workers within the organization.

### 3.3 High- vs. low-context cultures

Edward Hall (1976) described communicated messages between people as highcontext messages and low-context messages. The communication approach creates a culture that is shared by a group of individuals who share similar sets of experiences and expectations. In high-context culture such as the UAE, many things are assumed and unsaid, left primarily to the culture to do the explanation. Communicators say what they don't necessarily mean. The choice of words is very important in high-context societies because a few words must communicate a complicated set of messages. On the other hand, in low-context culture the communicator explicitly means what they say, hence, the communicator must be very clear in their message and choice of words is not necessarily important (Hall, 1982).

Although Latin America is in the Western hemisphere, high-context cultures are more customary in the Eastern hemisphere, which is where the UAE is located (Copeland and Griggs, 1986). High-context culture of the UAE puts more emphasis on the group rather than the individual, and tends to have a preference for hierarchical social order with heavy importance placed on age, rank, family name, status, and seniority. Losing face tends to be an important factor in high-context societies; the individual tries not to lose face because it reflects negatively on the entire group, family, society, or the country (Liao, 2007). In contrast, low-context societies tend to have a preference for the independence of the individual, value individuals' capability, and concentrate on individual performance rather than the group. Time perception also differs between the high- and low-context societies.

Western cultures are considered monochromic when it comes to time management. That is, time is divided as per tasks assigned, respected, and managed accordingly. High-context culture of the UAE is considered polychromic society where time is fluid and approximate rather than exact.

Copeland and Griggs (1986) classified various cultures in relation to Hall's theory as shown in Table 3.1.

This image has been removed due to third party copyright. The unabridged version of the thesis can be viewed at the Lanchester Library, Coventry University.

Table 3.1 High- vs. low-context cultures

The UAE's culture is known to be an Arab culture. As defined by Hall (1976) and classified by Copeland and Griggs (1986) Arab culture is a high-context culture that gives much prominence to the way people communicate messages and do work. Therefore, it is important to understand the impact of such cultural norms on the workplace and particularly on e-performance systems in governmental organizations in the UAE.

Gray (1999) and Carpenter (2002) concur that Hall's theory is the most dominant performance assessment model in cross-cultural analysis, when studying the impact of people's culture and information systems. Therefore, Hall's theory is widely used in this research study largely because of the flexibility of the model, its comprehensiveness, and because no other theory so clearly links cultural attributes with communication systems as Hall's theory does.

### 3.4 Chapter summary

Understanding cultural forces in accepting and successfully implementing technology systems that deal with assessment and evaluation of employees will facilitate the transitional process from manual to e-performance assessment. This chapter of the research attempts to determine the impact of cultural implications on people's performance, specifically in governmental organizations in the UAE, which is comprised of predominantly UAE nationals.

Del Galdo (1996) suggested that cultural environment shapes one's attitudes and behaviour, while Hofstede (1980) stated that human behavioural differences are largely shaped by cultural attributes. Hall (1976), Hofstede (1980, 1991), Luna et al. (2002), Trompenaars (1993), Tsikriktsis (2002), and Singh et al. (2005), all agree that culture and cultural norms are the key factors in determining human interaction with one another and with technology.

Hofstede (1991) suggests that the surrounding environment influences culture and it is what distinguishes people from one another; the accumulation of learnt behaviour over time forms the process of mental programming. Hofstede argues that there are five cultural dimensions to any given society, which governs human interaction. They are: the Power Distance Index, Individualism vs. Collectivism, Masculine vs. Feminine, the Uncertainty Avoidance Index, and Long-Term Orientation vs. Short-Term Orientation. The significance of Hofstede's model to this study is that it stresses the importance of cultural attributes as the key influencing agents in the hierarchal relationship between workers within the organization.

Hall's (1976) theory is considered to be the most dominant performance assessment model in cross-cultural analysis, when studying the impact of people's culture on their acceptance of information systems. Hall's theory describes communicated messages between people as high-context messages and low-context messages. The communication approach creates a culture that is shared by groups of individuals who share similar sets of experiences and expectations. Hall's theory is widely used in this research study because of the flexibility of its theoretical model, its comprehensiveness, and because no other theory so clearly links cultural attributes with communication systems.

### **CHAPTER 4**

### **RESEARCH METHODOLOGY**

#### **4.0 Introduction**

This chapter discusses the research methodology employed in the study. The discussion in this chapter starts with a presentation of the hypotheses, and then the selection of a suitable research methodology and a review of the underlying philosophical perspective are discussed. This discussion leads to an explanation of the use of the qualitative and quantitative research methods. The discussion concludes on the adoption of a research strategy and justifies the selection of a research methodology for the purpose of hypothesis testing. Then, the researcher discusses in detail the pilot study project conducted and the empirical research methodology. Description of the empirical research methodology is presented in three parts, as follows: (a) research design; (b) data collection; (c) and data analysis. Finally a description of the research strategy, the variables to be measured, sampling, methods of data collection, and method of data analysis are presented. This chapter concludes with a discussion of the limitations on the study by circumstances beyond the researcher's control

#### 4.1 Philosophical considerations

Myers and Avison (2002) argue that all researches are based on some underlying assumptions about what constitutes 'valid' research and which research methods are appropriate. In order to conduct research, it is important to know what these assumptions are. Furthermore, they state that the most pertinent philosophical assumptions are those that relate to the underlying epistemology, which guides the research. Epistemology refers to the theory of knowledge, in particular how to acquire knowledge. There are two basic points which need to be looked at: (a) the knowledge and (b) how to obtain valid knowledge.

Chua (1986), suggest three categories, based on the underlying research epistemology: (a) positivist, (b) interpretive, and (c) critical. This three-fold classification is the one that is discussed here. However, it needs to be said that these three research epistemologies are philosophically distinct (as ideal types), but in the practice of social research these distinctions are not always so clear-cut (Lee, 1991). There is considerable disagreement as to whether these research 'paradigms' or underlying epistemologies are necessarily opposed or can be accommodated within the one study.

## 4.2 Major categories of research methods

The growing importance of information systems (IS) research in the 1980s and 1990s has led to a number of different research approaches and methods, usually adopted from various disciplines such as sociology, natural sciences, and business studies. As a result, a number of different IS research taxonomies have been proposed (Galliers and Land, 1987). Furthermore, Kock et al. (1997) have considered four major research categories for conducting IS research. A brief description of these categories, which highlights major contrasting characteristics, defining key features, and addressing strengths and weakness (Galliers, 1992) is given in Table 4.1.

Experimental Research	Strengths	Weaknesses
Researcher has strong control over environment being observed. This research has roots in scientific practice of biologists and physicians, where variables are manipulated over time, associated numeric data collected, and causal or correlation models tested through statistical analysis.	Solution and control of a small number of variables, which may then be studied intensively. Greater realism; less artificial (in case of applying within organizations/ society).	Limited extent to which identified relationships exist in real world due to oversimplification of experimental situation and isolation of such situations from most variables found in the real world.

Survey Research							
Roots in work of economists and sociologists. In survey research researcher typically has considerable sample to be analysed, which suggests use of questionnaires with questions easily answered and that permit quantitative evaluation. Survey research typically applied to validate models and hypotheses.	Greater number of variables may be studied than in case of experimental approaches. Description of real world situations. More easy/ appropriate generalizations	Likely that little insight obtained. Possible bias in respondents (self- selecting nature of questionnaire respondents), the researcher, and the moment in time when the research is undertaken					
Case Research	1	1					
Roots in business studies. Cases are analysed either to build up or validate models or theories, typically through collection of textual data by interviews. Essentially merely means of describing relationships existing in particular situation.	Capturing 'reality' in greater detail and analysing more variables than possible using experiments and surveys.	Restriction to single event/organization. Difficulty in generalizing, given problems of acquiring similar data from statistically meaningful number of cases. Lack of control of variables. Different interpretations of events by individual researchers/stakeholders					
Action Research							
The origins of this research approach rest in socio- psychological studies and work- life issues. Action research is often uniquely identified by dual goal of both improving organization and participating in research project.	Practical as well as theoretical outcomes most often aimed at emancipatory outcomes. Biases of researcher made known.	Similar to case study research, but additionally places considerable responsibility on researcher when objectives are at odds with other groupings.					

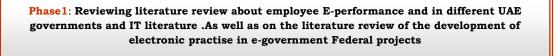
 Table 4.1 Categories of research strengths and weaknesses

### 4.3 Research structure

Phase 4 Distributing the survey to the

employee in the selected organizations

In this part, a description of the research methods and structure used in this study is discussed thoroughly and connected directly with other stages to match the outlines and procedures used during the study. The core purpose of this part is to give the reader a comprehensive picture about the research. Below is a framework and summary of the research structure:



Phase 2: Evaluating E-performance systems criteria's and sub criteria in context of employee E-performance system.

Phase 3: Developing an employee E-performance survey for both employees and management (and more specifically for the HR & IT managers)

> **Phase 4: Interviewing HR IT managers** in the organization in relation to areas highlighted in the literature review.

Phase 5: 1- Highlighting the main elements of E-performance systems, within the organizations. 2- Identifying management & IT practices in the organizations that are used to evaluate E- performance systems. 3-Analyzing each organization in terms of its IT and E- management practices.

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Phase 6: 1-Illustrating the critical success factor for enhancing employee E-performance and.

2-Providing a framework for future participation, towards enhancing employee E-performance .

**Phase 7: General Recommendations** 

### 4.4 Pilot study

A pilot study was conducted to reduce uncertainty in survey questions, increase clarity, enhance questionnaire validity, and expand on factors that might affect data analysis, improve research design, and confirm the feasibility of this research study. Creswell (2008) stresses that pilot studies assist researchers in refining the data collection process, and to unveil the likelihood of an inherited problem in the data collection tools utilized by researchers. Carl et al. (2009) also stressed the importance of pilot studies prior to data collection in an effort to improve research content validity and reliability. Additionally, Morris (2002) noted the value of pilot projects to quantitative and qualitative research studies by outlining the importance of aligning research questions to research objectives.

Bailey (2006) noted that a pre-test phase helps decrease the probability of variation and wrong interpretation caused by errors. This section of the chapter outlines the objectives, participants, results, steps, and the procedure followed in this pilot study

## 4.5 Objectives of the pilot study

There were a number of objectives assigned to the pilot study. The first was to enhance questionnaire validity and expand on factors that might affect data analysis. The second was to unveil any issues related to this study that might have been hidden from the researcher (Taylor and Bogdan, 2006). The third was to enhance the questionnaire validity of this study.

The pilot project proved to be very useful to the researcher in terms of better understanding the participants, the types of questions to be asked, the methodology of collecting data, the hidden issues that might have not been considered prior to the pilot study, and the adequacy of sample size and the questionnaire structure.

Moreover, special attention was given to attaining internal validity of the questionnaire by considering participants' responses to the questions asked, the relevance of questions in relation to the topic under investigation, the time needed to answer questions, missing words, redundancy in questions asked, confusing terminology, and evaluating whether response rate was sufficient to provide the data needed for this research study.

## 4.6 Process and participants of the pilot study

Creswell (2008) recommended that pilot studies should not include more than 12% of the targeted population sample. Vogt (2006) and Taylor and Bogdan (2006) also recommended a sample size between 10 and 30 participants for qualitative study. Therefore, the sample size for the pilot study was 22 people.

The process was as following: First, a semi-structured interview was conducted with the 22 government employees (11 personnel without managerial positions, and 11 personnel with managerial positions) asking them open-ended questions regarding the need for e-performance management systems in their respective organizations.

All employees interviewed were at managerial positions with more than five years' experience working directly with assessing and evaluating employees' performance at their departments.

Interviewed employees worked at the federal governmental ministries shown in Table 4.2.

Name of Governmental Organization
Dubai Electricity and Water Authority (DEWA)
AI Ain Distribution Company (ADDC)
TRANSCO
Dubai Cables (DUCAB)
Dubai Naturalization and Residency Department (DNRD)
Dubai Airport Free Zone Authority (DAFZA)
Sharjah Electricity and Water Authority (SEWA)
UAE Ministry of Presidential Affairs

 Table 4.2 Governmental ministries participating in the study

Both the questionnaire and the open-ended question for the qualitative analysis of the pilot study were translated into Arabic to facilitate the interview process, since all interviewees were Arab speakers. A preliminary draft of the questionnaire was translated by the researcher since he is versed in both Arabic and English languages. The same draft was reviewed and double-checked for accuracy of translation by two official translators in the UAE. The initial translation was made from the original English version to Arabic, and then it was translated again into English to ensure accuracy of translation. Consensus was reached that there was no discrepancy evident in translation between the original version and the translated version.

Both versions of the translation were presented to the supervisor to verify that all research objectives and substance were met and covered for the interview. The next phase was making appointments with the proper personnel at each governmental organization to conduct the interview. Prior to making appointments, verification was obtained of length of time in the job and the level of involvement in assessing and evaluating performance made through the human resources department at each ministry. No interview lasted less than one hour and ten minutes.

Each interview consisted of two stages. The first stage was the open-ended questions, and the second stage included filling-out the questionnaire and postquestionnaire interview. Each interviewee was presented with a signed letter by the researcher indicating the purpose and nature of the interview. The questionnaire was first administered to personnel, managers, supervisors and professional staff.

Following the administration of the questionnaire, individuals were interviewed concerning the appropriateness and clarity of the questionnaire items. Each respondent was asked if he or she believed any important items could be omitted from the survey and asked to contribute information regarding the language and wording used in the instrument. All questionnaires distributed were returned without any missing fields or answers, and all 22 personnel and managers who filled out the questionnaire were interviewed thereafter.

## 4.7 Pilot study outcome

The pilot study provided a significant insight into e-performance management systems in governmental organizations within the UAE (See Appendix 1). The analyses were as follows:

All open-ended answers were examined thoroughly to become more familiar with the nature of the data. Then the data were categorized and classified according to themes. Each theme represented a major point of findings as a result of the interviews conducted with both employees and managers.

Analysis of the pilot study along with observation and literature review enhanced the design of this study. This confirms both Taylor and Bogdan's (2006) and Morris' (2002) argument that pilot studies provide an excellent methodology to ensure adequate data collection tools and improving data collection instruments. The results of the pilot study along with the review of related literature to this study also mirrored related questions and theoretical issues, especially the importance of cultural values and forces in relation to e-performance management systems.

This also concurs with Morris' (2002) argument on the importance of conducting pilot studies prior to primary data collection. The pilot study created a new awareness of the impact of cultural forces on the utilization and implementation of e-performance management systems in governmental organizations in a society such as the UAE.

The pilot study and feedback generated in the form of one-to-one conversations established validity as follows:

- Ease of use of the questionnaire.
- Validity of the questionnaire and its content.
- Confirming that the time needed to fill in the questionnaire was adequate.
- Confirming that a self-administered questionnaire is an adequate method for increasing response rate.
- Adequacy of response rate.
- Unveiling the cultural forces that play a vital role in this study.

In the final analysis of the pilot study, the researcher determined that no further pilot study was needed as questionnaire response rate, content, and time needed to administer were satisfactory, and the post-pilot study data collection phase was ready to go.

### 4.8 Selection of quantitative research

Selecting an appropriate research approach is a key task of the research design process, the most common approach being either deductive or inductive. Saunders et al. (2000) reported that a deductive approach is employed when developing a theory and research strategy is then designed to test the theory. An inductive approach is used to collect data and develop theory as a result of the data analysis.

For the purposes of this thesis, a conceptual model was determined on the basis of the literature analysis, pilot study, the empirical collection of data, and finally the model was revised as a result of the theoretical and empirical work. Therefore, in this research an inductive approach was employed to the literature part, as the conceptual model was based on the literature analysis and pilot study.

Essentially, there are two approaches to investigation, namely, quantitative and qualitative. Myers (1997) addressed the issue of qualitative research in information systems, and stated that it involves the use of qualitative data such as interviews, documents, and participant observation to understand and explain social phenomena. Furthermore, he stated that in information systems, there has been a general shift in IS research away from technological to managerial and organizational issues, hence increasing interest in the application of qualitative research methods.

Lee (1991) observed that qualitative IS researchers typically profess knowledge of what an information system is, and what a systems approach involves. Qualitative research methods were developed in the social sciences to enable researchers to study social and cultural phenomena. Common examples of qualitative methods are

action research, case study research, and ethnography. In order to show the importance of qualitative research over quantitative research, Kaplan and Duchon (1988) argue that the goal of understanding a phenomenon from the point of view of the participants and its particular social and institutional context is largely lost when textual data are quantified.

Quantitative research is all about quantifying relationships between variables. Variables are things such as weight, performance, time, and treatment. You measure variables on a sample of subjects, which can be tissues, cells, animals, or humans. You express the relationship between variable using effect statistics, such as correlations, relative frequencies, or differences between means.

The quantitative research strategy is adopted in this study mainly because of the nature of the study. This involves obtaining the views and opinions of the individuals involved in the UAE governmental organizations through the pilot study. Consequently, the following research techniques are discussed in this section:

- Sampling
- Fieldwork research (primary data)
- Questionnaire

It is impracticable for a researcher to survey an entire population without selecting a sample. This is because of budget and time constraints. Francis (2004: 14) argues that 'There is no universal formula for calculating the size of a sample.' However, some of the general factors that helped the researcher in determining the sample size were the money and time available, and the aims of the research.

The methodology used in this research can be described as follows: first a descriptive method to explain the main management theories in identifying employee e-performance, followed by illustrating the concept of electronic tools, based on what has been written in relevant references, then conducting a pilot study.

Introducing the concept of management and IT theories through illustrating their development role internationally followed this. While the following section will look at UAE employee performance and the structures and systems applied in identifying the main criteria of e-government. The next step was identifying the above findings in developing a model to build employee performance and satisfaction identifying and illustrating each concept in the context of employees' electronic performance and management practices.

Furthermore, since there are many metrics and tools to measure e-performance acceptance and implementation, a post-pilot study survey was conducted to measure managers' and employee needs, satisfaction, and the main features of the proposed system in their respective organizations.

## 4.9 Study sample and questionnaire

The study is of an empirical and field nature conducted on a chosen sample of UAE public sector governmental organizations. The various reasons behind this selection include:

- Accessibility to key personnel in all governmental organizations in the UAE.
- The governmental organizations using e-government services represent an important sector in the present and future development of Dubai Emirate. The UAE government is seeking to build one of most advanced and prosperous economic centres in the region. Recognizing that this ambition can only be realized by grounding every effort on solid scientific bases, the government encourages e-performance efforts that meet the prerequisites of such an objective by adopting the latest technological standards.
- The geographic proximity of public organizations within Dubai was also an important factor in conducting this study within the time constraint,

and other requirements that facilitate the process of the study's survey questionnaire, interviews, and relevant data collection.

The post-pilot study data collection involved an entirely different set of participants from those who participated in the pilot study. The empirical data collection process was as follows: a survey questionnaire had been addressed to those in charge of e-government sectors with a covering letter explaining research objectives, and inviting and encouraging participants' response. Participants were a mixture of managers, employees, and personnel either with some level of involvement in e-performance management systems or planning to be involved in e-performance systems.

In general, the study could conclude that the majority of respondents were in charge of e-performance activities possessing the necessary requirements of this profession in terms of qualifications, skills, and length of time at the job. This conclusion was derived from the semi-structured interviews conducted with some of the personnel who participated in the quantitative data collection phase. The qualitative part of this study was done through the pilot study that was presented in the previous section, and the semi-structured interviews conducted in the post-quantitative data collection phase.

The empirical part of the study was conducted in two phases: observation by the researcher through the daily activities engaged in over the past five years, a general self-administered survey questionnaire involving employees of UAE governmental organizations, and a review of literature and theoretical work related to e-performance such as Davis' (1989) work on TAM.

After the self-administered survey was conducted, a series of follow-up interviews were done. The interviews involved a number of managers from 8 governmental organizations who were broadly representative of the study's sample of the public sector at large. The survey questionnaire after its initial design was sent to a number of academic and professionals for comments, then reviewed and enhanced by the results of the pilot study, and finally were presented to the research supervisor for comments and final approval.

Most of the comments and opinions generated through the pilot study were useful and adopted by the researcher to enhance the questionnaire in its final form and was approved by the research supervisor. Also, the researcher sought the advice of specialists in computing and statistics regarding the appropriate statistical techniques to be applied in the data analysis stage of this study.

The qualitative part of the study during the piloting stage adopted open-ended semistructured interviews, while the quantitative part of the study adopted the 7-point scale of Likert to measure the independent variables; alongside averages and in some cases open-ended questions in order to collect some desired data and information. The reason is that most respondents tend to offer summarized and limited answers without going into details considered internal or private.

Because of the nature of this study, a non-random purposive sampling method is used. One of the main goals is to find out the factors affecting the uncomplicated application of the e-performance system. The population and the sample used in the study were selected from the UAE public sector governmental organizations represented in 8 different governmental organizations who are somewhat involved or planning to implement an e-performance system.

### 4.10 Validity

Validity of the instrument indicates whether or not the measurement instrument does in fact measure what it is intended to measure (Fitz-Gibbon and Morris, 1987). The convergent and discriminate validity were assessed with a variation of Campbell and Fiske's (1959) MTMM technique.

Furthermore, the type of questionnaire used in this study could only be considered valid if it contains questions and possible responses that accurately represent the topic of study and are worded in clear, unambiguous language. This was validated through the pilot study stage.

The review of the literature, in particular Brudney and Brown (1990) and Apple, Immersion, Macdonald, and Long (1988), helped to determine possible need areas. To further determine the validity of the instrument a pilot study was conducted as described above.

### 4.11 Survey method

The survey method is usually to gather data from a relatively large number of respondents within a limited time frame. It is thus concerned with a generalized result when data are abstracted from a particular population sample. The survey method may be implemented by a mail questionnaire, telephone questionnaire, and personal interviews. Of these techniques, the mail and personal questionnaire were used in this study (Creswell, 2008).

Morris (2002) concurs that mail questionnaires are economical to use. They are a quick method of conducting a survey and they provide the opportunity for respondents to consult to answer the questions and respondents feel free to express their opinions and recommendations without any fear. The limitations of this method include inflexibility, lack of control over respondents or their answers, and the need for questions to be simple and direct.

### 4.12 Design of the questionnaire

The design of the questionnaire is based upon the pilot project, research objectives, and the theoretical directions derived from the literature review. This procedure was adopted to design and develop the questionnaire.

General information such as age, gender, and education details are included in Section I. Perceived usefulness variables such as easier to do my work, accomplish tasks more quickly, are discussed in detail in Section II. Perceived ease of use variables such as learning to use e-performance, easy to get e-performance, interaction with e-performance, are all included in Section III. Perceived compatibility variables such as e-performance compatibility, e-performance would fit well, are all included in Section IV. Trusting the e-performance system is discussed with variables such as keeping personal information safe on the website, trusting web administrators, in Section V. Behaviour intention variables such as increased use of e-performance, and frequent use of e-performance, are all included in Section VI.

All the questions in Sections II–V are all 'closed-ended' questions on a numerical scale from 1 (strongly agree) to 7 (strongly disagree). These formats encourage the respondents to answer the questions and return the questionnaire early. Thus a high response rate may be the reward for closed-ended questions with opinion question format.

## 4.13 E-performance questionnaire analysis sample size

The e-performance in the UAE is affected by the degree to which managers, employees, and specialized development staff are involved in the designing and setting up of the e-performance process. Stern and Sommerlad (1999) explain that self-managed teams and team members are able to define their own learning needs. The responses from the responders for all the sections are scored as:

- 1 Completely disagree to the fact
- 2 Disagree to the fact
- 3 Partially disagree to the fact
- 4 Neutral to the fact
- 5 Partially agree to the fact
- 6 Agree to the fact
- 7- Completely agree to the fact

## 4.14 Statistical concepts and techniques adopted by the study

The following statistical measures were used while testing the main hypotheses and analysing the raw collected data:

Standard Deviation

- Mean
- Median
- Variance

One of the important measurements is to decide on data homogeneity. This factor is the mean of the mean. The standard deviation is a statistic that tells you how tightly all the various examples are clustered around the mean in a set of data. When the examples are pretty tightly bunched together and the bell-shaped curve is steep, the standard deviation is small. When the values are spread apart and the bell curve is relatively flat, the standard deviation is relatively large.

## 4.15 Research limitations

Despite the promising results, some limitations of this research should be noted that could be addressed in future research.

The first limitation of this research is the use of a single source of data. Creswell (2008) suggested that the seriousness of this issue depends on the research questions and the variables under consideration.

The second limitation of this research is that it did not consider the e-PMS implementation process. Thus it can be recommended that in future research this issue should also be highlighted.

The third limitation is that the research examines the accessible population of the UAE governmental organization, in spite of the numerous private firms and corporate entities located in the UAE and their varied circumstances. Thus this study does not tap into the private sector. The researcher recommends that the UAE private sector should be included in future research studies.

The fourth limitation of this research is the quantitative cross-sectional design of the study. As the data were collected at a single point in time, one is unable to establish cause and effect relationships among all variables of interest.

### 4.16 Chapter summary

This chapter discusses the research methodology employed in this study. The discussion starts with presentation of the hypotheses, and then the selection of a suitable research methodology and a review of the underlying philosophical perspective are discussed. This discussion leads to an explanation for the use of the qualitative and quantitative research methods. The chapter concludes with research limitations. This chapter also covers the pilot study done prior to the data collection process. Comments and opinions generated through the pilot study were adopted by the researcher to enhance the questionnaire in its final form and approved by the research supervisor. The limitations of this research questions and the variables under consideration, (b) the research did not consider the e-PMS implementation process, (c) the research examines population of the UAE governmental organization, and not the private sector of the UAE since it is outside the scope of this study, and (d) the quantitative cross-sectional design of the study.

## **CHAPTER 5**

## **RESEARCH MODEL AND HYPOTHESES**

### **5.0 Introduction**

By taking TAM as a base, a model for this research is proposed in order to determine e-performance in the context of UAE governmental organizations. TAM proposes two important variables that affect user intention which are perceived ease of use and perceived usefulness. By reviewing the TAM literature especially TAM studies and other studies that have relationship with e-performance, comments from the pilot study, and interviews from empirical data collection phase, the following variables added to TAM and a new model is proposed.

This research also focuses on user adoption as it relates to e-performance using recent extensions of the TAM, initially developed by Fred Davis (Davis, 1989). Based on TAM, and the empirical data collection phase, this research investigates the perception of users in regards to e-performance with particular focus on performance measurement, e-performance measurement, performance assessment, e-performance standards. The model is represented in Figure 5.1.

This image has been removed due to third party copyright. The unabridged version of the thesis can be viewed at the Lanchester Library, Coventry University.

Figure 5.1 Proposed Model for the E-Performance System (AI Raisi et al. 2011)

## 5.1 The research hypotheses

To satisfy the intended purpose of this research, the following is noted: The premise that increases in system quality increase user satisfaction has been studied fairly extensively by a number of researchers. It has been found that there is a significant relationship between system quality and user satisfaction.

Based on the aforementioned, the following hypothesis is proposed:

[H1a] Performance measurement will positively and significantly influence user satisfaction.

Performance Measurement (PM) Variables					
Performance result is used to improve employee skills					
Mentoring is used to improve employee skills and development and correction					
Each key position in the organization has electronic performance formats on their					
system					
Continuous personal development					
Providing performance feedback to employee					
Employee performance and improvement					

[H1b] E-performance system measurement will positively and significantly influence user satisfaction.

	E-Performance Measurement (EPM) Variables									
Electronic	performance	appraisal	(EPA)	is	the	effective	means	by	which	an

organization discovers qualified people

The organization uses vocational education for employee development in relation to electronic performance results

There is a growth in the use of the electronic performance results to support training and development programmes

Electronic performance systems are used as an attraction tool to attract high calibre people

Electronic performance ensures satisfactory work and attitude meet a high set of standards

With the use of the Technology Acceptance Model (TAM), system quality was found to have a significant influence on system usage. Many researchers have applied TAM for assessment of the different components. They found a significant impact of system quality on system usage, with the latter measured in terms ease of use.

The foregoing discussion leads to a second hypothesis.

[H2a] Performance system assessment is expected to have a significant positive relationship with intentions to use e-performance.

## Performance Assessment (PA) Variables

Do you believe that performance appraisal is linked to overall goals and

strategies of an organization

Performance appraisal is used to identify the skill gaps in the organization

Our organization should rely only on external electronic PA centres

The organization uses vocational education for employee development in relation to electronic performance results

Linking electronic performance to strategy

[H2b] E-performance system assessment is expected to have a significant positive relationship with intentions to use e-performance

## E-Performance Assessment (EPA) Variables

Employees are given their performance scores via intranet to know their weakness and strengths

Electronic performance ensures exceptional work and attitude far exceeding standards

Electronic performance appraisal results are linked to the internal promotions system in the organizations

Electronic performance approaches are designed and run according to international standards

The management strongly belief that electronic performance is a major source for organization's competitive advantage

Current literature shows that the higher the standard/quality of a system, the greater the successful use of the system. This shows that standard/quality of a system positively influence the usage of the system. Based on the aforementioned discussion, a third hypothesis is:

[H3] E-performance standards will positively and significantly guide system usage.

E-Performance Standards (EPS) Variables					
Electronic performance is more effective than manual performance					
EPA is used to identify the skill gaps in the organization					
Our organization should have an electronic PA assessment centre					
The electronic system allowed employees to link performance to business					
strategies					
The organization uses e-performance appraisal (computer-based					
assessment)					
Electronic performance results are used to empower employee					

Electronic performance ensures satisfactory work and attitude meet a high set of standards

# 5.2 Conceptual model

E-performance is the term used to describe the use of electronic methods in every stage of the performance process from identification of requirements through to payment, and potentially to contract management. E-performance solutions enable organizations, large, small, or medium, to automate their purchasing process and reduce processing costs.

The Technology Acceptance Model (TAM) (Davis, 1989; Davis et al., 1989) was adapted from the Theory of Reasoned Action (TRA). The TAM is very well known and widely accepted and cited. Davis (1989) developed the TAM to explain the usage and acceptance of technology such as computer and information technology. According to Davis user acceptance is often the pivotal factor determining the success or failure of an information system'.

TAM is based on the following core concepts:

- Perceived usefulness, which has been defined as a user's subjective perception of the ability of a computer to increase job performance when completing a task; and
- Perceived ease of use, which is a person's subjective perception of the effortlessness of a computer system, which affects the perceived usefulness thus having an indirect effect on a user's technology acceptance.

The Technology Acceptance Model has been extensively incorporated as a methodology to measure attitude towards technology adoption from users in multiple domains. TAM variations have also been proposed and applied for measuring users' attitude towards adoption of several information technology based services. An extensive body of subsequent research has confirmed the usefulness of TAM – and various extensions and revisions – as a tool for investigating and predicting user information technology acceptance (Taylor and Todd, 1995).

TAM's four major variables are: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Behavioural Intention (BI), and Behaviour (B). PU is used as both a dependent and independent variable since it is predicted by PEOU, and predicts BI and B at the same time. Behaviour was usually measured using frequency of use, amount of time using, actual number of usages, and diversity of usage.

A number of external variables were introduced into TAM as suggested by Davis (1989). The term 'external variables' includes all the system design features. These features have a direct influence on perceived usefulness (PU) and perceived ease of use (PEOU), while attitude towards using has an indirect influence effect on the actual system use. Davis (1993: 477) defines PEOU as 'the degree to which an individual believes that using a particular system would be free of physical and mental effort', and PU as 'the degree to which an individual believes that using a particular system would be lieves that using a particular system would be lieves that using a particular system would be believes that using a particular system would b

state, the goal is to provide us with an explanation of the determinants of information systems acceptance.

Similar to TRA, user beliefs determine the attitude towards using the information system. This attitude drives intention behaviour to use which leads to actual system use. Dishaw and Strong (1999: 9–21) noted a weak point in TAM concerning task focus. According to them TAM differs from TRA 'in two keys'. The first is that defining PEOU and PU as external variables that determine the intention to use not the actual use. More specifically, PEOU and PU are conceptually similar to relative advantage and complexity (the opposite of ease of use).

### 5.3 Chapter summary

By taking TAM as a base, a model for this research is proposed in order to determine e-performance in the context of UAE governmental organizations. TAM proposes two important variables that affect user intention which are perceived ease of use and perceived usefulness. By reviewing the TAM literature especially TAM studies and other studies that relate to e-performance, comments from the pilot study, and interviews from empirical data collection phase, variables are added to TAM and a new model is proposed. This research also focuses on user adoption as it relates to e-performance using recent extensions of the TAM, initially developed by Fred Davis (Davis, 1989). Based on TAM, and the empirical data collection phase, this research investigates the perception of users with regard to e-performance with particular focus on performance measurement, e-performance measurement, performance assessment, e-performance standards.

The premise that increases in system quality increase user satisfaction has been studied fairly extensively by a number of researchers. It has been found that there is a significant relationship between system quality and user satisfaction. The hypotheses presented in this chapter therefore are as follows:

H1a Performance measurement will positively and significantly influence user satisfaction.

- H1b E-performance system measurement will positively and significantly influence user satisfaction.
- H2a Performance system assessment is expected to have a significant positive relationship with intentions to use e-performance.
- H2b E-performance system assessment is expected to have a significant positive relationship with intentions to use e-performance.
- H3 E-performance standards will positively and significantly guide system usage.

### **CHAPTER 6**

### DATA ANALYSIS AND RESULTS

### 6.0 Introduction

This chapter introduces the statistical distribution and demographic frequency distribution of the subjects. This research on e-performance covers a wide range of functionalities, which support different sets of activities. Therefore to achieve the research objective, this work limits the field of investigation to those e-performance variables that are devoted to the formalization and the sharing of best practices and experiences within the organization. The results of the instrument validation tests are presented. The regression analysis model is presented and the results of the analyses are furnished. The analysis of the responses obtained was done using SPSS software version 15. The rigorous statistical analysis was performed on the collected data to determine the exactitude of the hypothesized relationships.

#### 6.1 Data analysis

Data analysis was performed with both descriptive and inferential techniques. On the descriptive side, summary tables, averages, and average percentage were used. In order to establish casual relationships between variables, regression analysis was used. Though the level of measurement is not ratio (which is the basic requirement for the use of regression analysis) the Numerical scale was used as an approximate interval scale. Before starting data analysis, the answered questionnaires were edited to exclude extremely inconsistent and extremely incomplete ones. Each completed questionnaire was read through as it was received. The Statistical Package for Social Science (SPSS) was the main tool used for analysing the collected data for the study. Survey responses were tabulated and regression analyses were deployed.

Statistical values are calculated on the data collected using the various questionnaires.

Skewness is a calculation of the irregularity of the probability distribution of the variable to be measured. The skewness value can be positive or negative depending on the situation.

Cronbach alpha ( $\alpha$ ) is a coefficient of reliability. It is a measure of the internal consistency or reliability for the data sample. Cronbach alpha is used to test the inter-correlations among the data sample. The reliability of the measurement instrument was assessed using Cronbach alpha in the questionnaire. Cronbach alpha is known to calculate the internal consistency estimate of reliability of test scores.

Cronbach alpha is related to the Spearman–Brown prediction formula. The split half technique was conducted using the Spearman-Brown formula, which yielded satisfactory results supporting the reliability of the different scales. The Spearman–Brown formula is a psychometric test of measure of the reliability of the test after changing the time of the test. The formula is used to predict the reliability of the test.

The Kurtosis is used for prediction of reliability of replicating the test. Kurtosis is the distribution of the random variable based on the probability and the measure of distribution. The valued random variable is measured by the Kurtosis value.

T-test is the statistical hypothesis where the test statistic follows a t-distribution and the support of the hypothesis. The null hypothesis is tested by the t distribution and would normally follow a normal distribution curve like a bell shape.

### 6.2 An empirical study

The first step in the data analysis was to design a codebook to identify the questionnaire item, its variable name and the code description of the answer. A coding sheet was designed where the columns were used to record each

questionnaire item that had been pre-coded in the codebook and each row was recorded as an individual's responses across the various questionnaire items.

No.	Section	Cronbach alpha		
1	Section I – General Information	0.313		
2	Section II – Performance Measurement	0.635		
3	Section III – E-Performance Measurement	0.483		
4	Section IV – Performance Assessment	0.617		
5	Section V – E-Performance Assessment	0.492		
6	Section VI – E-Performance Standards	0.531		

 Table 6.1 Cronbach alpha variables for Sections I–VI questionnaires using aggregate values of the eperformance study variables

The Cronbach alpha was for the six sections of the questionnaire as shown in Appendix-2. The table shows that the Cronbach alpha is highest for the performance measurement at 0.635. E-performance assessment has a Cronbach alpha of 0.483, performance assessment has a Cronbach alpha of 0.617, e-performance assessment has a Cronbach alpha of 0.617, e-performance assessment has a Cronbach alpha of 0.492 and general information has a Cronbach alpha of 0.313.

The screen shot in Appendix-3 shows the templates used for the variables used in the e-performance study. The reliability of the measurement instrument was assessed using Cronbach alpha ( $\alpha$ ) for each of the six sections in the questionnaire. The split half technique was conducted using the Spearman–Brown formula, which yielded satisfactory results supporting the reliability of the different scales.

The alpha coefficients range from 0.357 to 0.514. These coefficients provide evidence for reliability and internal consistency of the scales. The Guttman Coefficient ranges from 0.324 to 0.562 as shown in Table 6.2.

No S	Section	Alpha (α)	Guttm an	Spearman Brown		
				Equal length	Unequal length	
1.	Section I – General Information	0.514	0.562	0.636	0.618	
2.	Section II – Performance Measurement	0.398	0.502	0.406	0.414	
3.	Section III – E-Performance Measurement	0.417	0.324	0.498	0.491	
4.	Section IV – Performance Assessment	0.357	0.418	0.407	0.429	
5.	Section V – E-Performance Assessment	0.482	0.385	0.423	0.429	
6.	Section VI – E-Performance Standards	0.503	0.403	0.446	0.422	

 Table 6.2 Cronbach alpha, Guttman, and Spearman–Brown (equal length & unequal length)

 coefficients for the sections of the questionnaire using aggregate variable values

Section I has the general information of variables like age, gender, number of years of experience. Section I variables have Alpha ( $\alpha$ ) of 0.514, Guttman coefficient of 0.562, and the Spearman–Brown coefficient of 0.636. Section II has the performance measurement variables like electronic performance result is used to improve employee skills, mentoring is used to improve employee skills, each key position in the organization has electronic performance formats, and continuous personal development. Section II variables have Alpha ( $\alpha$ ) of 0.398, Guttman coefficient of 0.502, and the Spearman–Brown coefficient of 0.406.

Section III has the e-performance measurement variables like performance appraisal is linked to overall goals and strategies, performance appraisal is used to identify the skill gaps, our organization should rely only on external electronic PA centres, and linking electronic performance to strategy. Section III variables have Alpha ( $\alpha$ ) of 0.417, Guttman coefficient of 0.324, and the Spearman–Brown coefficient of 0.498.

Section IV has the performance assessment variables like electronic performance is more effective than manual performance, identify the skill gaps in the organization, having electronic PA assessment centre, e-performance system allows employees to link performance to business strategies, and electronic performance results are used to empower employee. Section IV variables have Alpha ( $\alpha$ ) of 0.357, Guttman coefficient of 0.418, and the Spearman–Brown coefficient of 0.407.

Section V has the e-performance assessment variables like electronic performance appraisal is the effective means by which an organization discovers the qualified people, each organization uses vocational education for employee development in relation to electronic performance results, the growth in the use of the electronic performance results to support training and development programmes, electronic performance system is used as an attraction tool to attract high calibre people, and electronic performance ensures satisfactory work and attitude meet a high set of standards. Section V variables have Alpha ( $\alpha$ ) of 0.482, Guttman coefficient of 0. 853, and the Spearman–Brown coefficient of 0.423.

Section VI describes e-performance standards as an independent variable of the study. The e-performance assessment variables are employees are given their performance scores via intranet to know their weakness and strengths, electronic performance ensures exceptional work and attitude far exceed standards, electronic performance appraisal results are linked to the internal promotions system in the organizations, electronic performance approaches are designed and run according to international standards, and the management strongly believe that electronic performance is a major source for the organization's competitive advantage. Section VI variables have Alpha ( $\alpha$ ) of 0.503, Guttman coefficient of 0.403, and the Spearman–Brown coefficient of 0.446.

The convergent and discriminate validity were assessed with a variation of Campbell and Fiske's (1959) MTMM technique. Table 6.3 below shows the MTMM matrix similar to that reported by Davis (1989) and Adams (1992).

In order to demonstrate discrimination and convergence of items in the various measures, items that measure the same trait should correlate higher with one

another. Items in the same scale should also correlate together higher than they correlate highly with one another. Items in the same scale should also correlate together higher than they correlate with other items measuring different traits (Campbell and Fiske 1959; Davis 1989).

It can be seen if the elements in the monotrait triangles within the MTMM matrices contain the highest correlation coefficients in their respective columns, where a monotrait triangle is a sub-matrix of intercorrelations between items intended to measure the same construct (Davis 1989). The shaded triangles in Appendix-4 (MTMM Matrix) represent the monotrait triangles.

Overall, the monotrait triangles in the MTMM Matrix show good convergent and discriminate properties. Items of the same scale are all highly and significantly (p< 0.01) correlated. The inter-item correlation coefficients ranged from 0.921 to 0.361. Items of the same scale are also correlated higher among each other than other items measuring different constructs. Only some variables like 'Mentoring to improve employee skills' and 'Electronic performance results is used to empower employee' show weaker inter-item correlations.

### 6.3 Descriptive statistics

This study was done in the Emirate of Abu Dhabi, Dubai, and Sharjah public sector organizations. The employees who responded to the questionnaires were from the Purchasing and Performance departments of Dubai Electricity and Water Authority (DEWA), Al Ain Distribution Company (ADDC), TRANSCO, Dubai Cables (DUCAB), Dubai Naturalization and Residency Department (DNRD), Dubai Airport Free Zone Authority (DAFZA), Sharjah Electricity and Water Authority (SEWA), and Ministry of Presidential Affairs.

### 6.3.1 Sampling statistics

164 responses were obtained from 304 questionnaires distributed. As shown below 54% have responded and 46% have not responded to the questionnaires. From the

general interviews and informal chat with the users, they were keen on the technology of e-performance but were not completely involved and aware about its detailed process and guidelines.

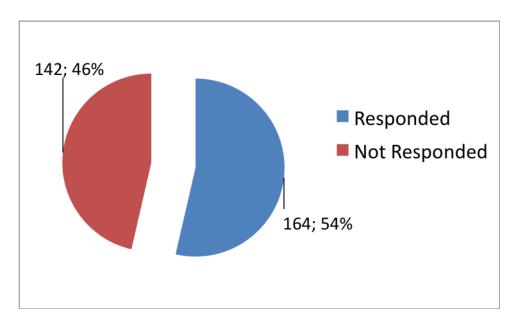


Figure 6.1 Survey responder statistics

## 6.4 Demographics

The demographic items I.1 to I.8 were intended to gather general information about the responders. These demographic variables included; gender, age, whether a UAE national, and job experience, and were not hypothesized to have relationships with the variables of e-performance study. These variables were mainly gathered to describe the sample. However, the demographic variables were included in the regression model to identify any relationships that may be present between them and the variables of the study. Table 6.4 shows the demographic frequency distribution for the demographic variables.

Variables	Frequency	%	Mean	Std. Dev	Skewness	Kurtosis
Gender			0.72	0.25	1.396	0.284
Male	74	45.2				
Female	90	54.8				

Age			3.73	1.04	0.38	-0.816
17–22	21	12.75				
23–28	33	20.80				
29–34	29	18.12				
35–40	38	24.16				
41–47	22	13.42				
48–55	17	10.06				
> 55	3	0.67				
UAE Nationa	1		0.55	0.50	1.43	-2.040
Yes	105	66.4				
No	57	33.5				
No. of Years at Current Organization		7.25	4.34	1.427	0.326	

Table 6.3 Statistical analysis of the exogenous variables

The respondents were heterogeneous in their background and showed healthy variances. These variances were the motivational force to include these variables in the regression analyses, which will be explained in a later section of this chapter.

The sample included 164 responses representing 74 males (45.2%) and 90 females (54.8%). The gender variable has a mean of 0.72 and standard deviation of 0.25.

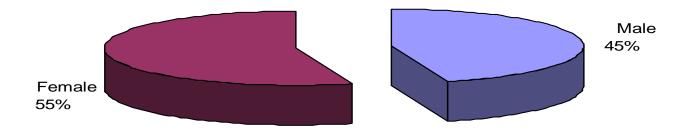


Figure 6.2 Graphical percentage distribution of gender of the responders

As shown above, 45% of the responders are males and the 55% are females.

The maximum number of respondents was from the 35–40 age group representing 24.16% of the responders. Thirty-three responders were from the 23–28 age group and represented 20.80% and 29 responders were from the 29–34 age group and represented 18.12%. Very few responders were from the above 40 age group (12 responses having 10.06%) were the main highlights. The age variable has a mean of 3.73 and standard deviation of 1.04.

105 responses accounting for 66.41% were UAE nationals. All these statistics are shown below in Table 6.3 Very high percentages (66.41%) of the responders are nationals. This ratio is justified by the high intake of UAE nationals in the public sector. In the UAE, the drive is called Emiratization that aims at recruiting UAE nationals in the government sector and slowly increasing their employment in the private sector as well.

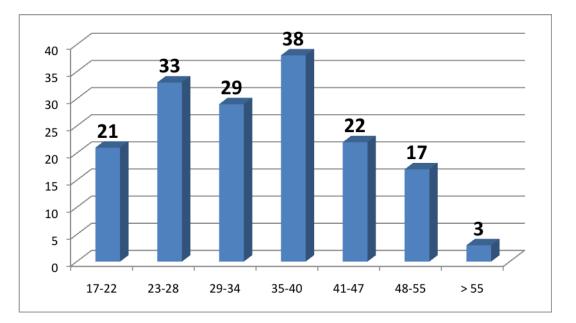


Figure 6.3 Count of the age distribution of the responders

Most of the responders are in the age group 35–40 (24.16%). 20.80% of the responders are in the age groups 23–28 and 35–40. Hence it is clear that 44.96% of the responders are between 23 and 40. Only 13 responses were in the above 40 age

group totalling 10.73%. The age variable has a mean of 3.73 and standard deviation of 1.04.

## 6.4.1 Item frequencies

In the analysis of respondents' answers, data, and testing the study's hypotheses the following statistical techniques were used: Standard Deviation, Cronbach alpha, and variances. One of important measurement is to decide on the data homogeneity. This factor is the mean of the mean. The standard deviation is a statistic that tells how tightly all the various examples are clustered around the mean in a set of data. When the examples are pretty tightly bunched together and the bell-shaped curve is steep, the standard deviation is small. When the values are spread apart and the bell curve is relatively flat, the standard deviation is relatively large.

The response frequencies of the items used in the questionnaire are listed in Table 6.4A. Overall, respondents rated their support agreeing to the variables that voice the acceptance of e-performance solutions in the UAE.

Variable	Mean	Std. Deviation	Median Response			
Section I – Performance Measurement (PM) Variables						
Performance result is used to improve employee skills	5.84	0.61	Agree			
Mentoring is used to improve employee skills and development and correction	4.22	1.73	Neutral			
Each key position in the organization has electronic performance formats on their system	4.25	1.12	Neutral			
Continuous personal development of employees	5.37	0.69	Agree			
Providing performance feedback to employee	5.57	0.49	Agree			

Employee performance and improvement	4.63	1.45	Slightly Agree
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Section I measuring Performance measurement is linked to research Objective 1 which aims to review on the background on the e-performance. Understanding performance management is important to understand the background for e-performance management.

In the Performance Measurement Section, having performance results to improve employee skills and providing the performance feedback to the employees were given more importance by the responders who had means of 5.84 and 5.57.

The maximum response from the employees is for performance results to improve employee skills which have a mean of 5.84 and standard deviation of 0.61. Providing performance feedback to employee and continuous personal development of employees has also high response rates and support from the employees and employers in the UAE organizations.

The main area of improvement in the manual performance measurement section is in the use of 'Mentoring to improve employee skills and development and correction' and 'Each key position in the organization has electronic performance formats on their system'. These two variables have means of 4.22 and 4.25. The standard deviations of these two performance measurement variables are 1.73 and 1.12.

This response indicates that the UAE organizations do not use mentoring technique to improve employee skills and each key position in the organization has electronic performance formats on their system. These are two areas for improvement.

Variable	Mean	Std. Deviation	Median Response
Section II – E-Performance Measurement	(EPM) V	/ariables	
Electronic performance appraisal is the effective means by which an organization discovers qualified people	4.88	1.53	Slightly Agree
The organization uses vocational education for employee development in relation to electronic performance results	5.02	0.83	Mostly Agree
There is a growth in the use of the electronic performance results to support training and development programmes	5.67	0. 73	Agree

Table 6.4A Distribution frequency of performance measurement study variable

Electronic performance system is used as an attraction tool to attract high calibre people	4.74	1.29	Slightly Agree
Electronic performance ensures satisfactory work and attitude meet a high set of standards	5.29	0.83	Agree

Section II measuring e-Performance measurement is linked to research Objective 2 which aims to study employee e-performance used in UAE federal government organizations. Vocational education, electronic performance and e-performance appraisal is important to analyse the Understanding eperformance management in UAE government.

The e-performance measurement methods show good response and agreement from the UAE responders. The staffs believe in a growth in the use of the electronic performance results to support training and development programmes and electronic performance ensures satisfactory work and attitude meet a high set of standards.

The respondents agree that the electronic performance ensures satisfactory work and attitude meet a high set of standards with 5.67 and standard deviation of 0.73. Electronic performance ensures satisfactory work and attitude meet a high set of standards with a mean of 5.29 and standard deviation of 0.83. The organization uses vocational education for employee development in relation to electronic performance results is also highly supported by the employees and employers of the UAE organizations.

There is a need for improvement in the performance measurement centre's section. The responders do not support the high dependence on electronic performance appraisal as an effective means by which an organization discovers qualified people. The mean is 4.74 and the standard deviation is 1.29 which is slightly deviating from the regular performance assessment methods. There is a need to create confidence and transparency in the e-performance measurement methods.

 Table 6.4B Distribution frequency of e-performance measurement variable, (Al Raisi et al. 2011)

Variable	Mean	Std. Deviation	Median Response
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Section III – Performance Assessment (PA) Variables

Do you believe that performance appraisal is linked to overall goals and strategies of an organization	4.92	1.06	Neutral
Performance appraisal is used to identify the skill gaps in the organization.	5.16	0.75	Agree
Our organization should rely only on external electronic PA centres	4.61	1.22	Slightly Agree
The organization uses vocational education for employee development in relation to electronic performance results.	4.57	1.04	Slightly Agree
Linking electronic performance to strategy	5.89	0.69	Agree

Section III measuring Performance assessment is linked to research Objective 2 which aims to study employee e-performance in UAE taking into account the emirate and expats cultural acceptance and usage of electronic systems. Understanding the role of linking electronic performance to strategy, the importance of performance appraisal and external PA centers are very critical to analyse the e-performance management in UAE government employees.

The performance assessment standards established in the organizations have a direct relation with the performance measurement and e-performance assessment methods. There are high expectations and very high standards set for performance assessment policies and procedures.

The highest support for performance assessment method like linking electronic performance to strategy has a mean of 5.89 and standard deviation of 0.69. Performance appraisal is used to identify the skill gaps in the organization has a mean of 5.16 and standard deviation of 0.75. Both these performance assessment methods are supported by UAE organizations.

Two performance assessment measures need to be improved. The organization uses vocational education for employee development in relation to electronic performance results has a mean of 4.57 and standard deviation of 1.04. Our organization should rely only on external electronic PA centres has a mean of 4.61 and standard deviation of 1.22.

**Table 6.4C** Distribution frequency of e-performance study variable

Variable	Mean	Std. Deviation	Median Response
Section IV – E-Performance Assessment (	EPA) Va	ariables	
Employees are given their performance scores via intranet to know their weakness and strengths.	4.92	1.79	Neutral
Electronic performance ensures exceptional work and attitude far exceed standards	5.04	1.03	Slightly Agree
Electronic performance appraisal results are linked to the internal promotions system in the organizations.	5.76	0.69	Agree
Electronic performance approaches are designed and run according to international standards	5.55	0.94	Agree
The management strongly believe that electronic performance is a major source for organization's competitive advantage	5.81	0.74	Agree

Section IV measuring e-Performance assessment is linked to research Objective 3 which aims to analyze the impact of using the developed employee e-performance on management process in organizations. Understanding Electronic Performance approaches including performance scores and Electronic Performance appraisal results are very critical to analyse the e-performance assessment in UAE government employees.

The users perceive the e-performance solution to be very closely related to performance appraisals and see a growth of this solution to support training and development programmes.

The management strongly believe that electronic performance is a major source for organization's competitive advantage has a mean of 5.81 and the standard deviation is 0.74. Electronic performance appraisal results are linked to the internal promotions system in the organizations has mean of 5.76 and the standard deviation is 0.69. Electronic performance approaches are designed and run according to international standards has a mean of 5.55 and the standard deviation is 0.69.

**Table 6.4D** Distribution frequency of e-performance study variable (AI Raisi et al. 2011)

Variable	Mean	Std. Deviation	Median Response
Section V – E-Performance Standards (EP	S) Varia	ables	
Electronic performance is more effective than manual performance	5.28	1.38	Agree
EPA is used to identify the skill gaps in the organization	4.59	1.02	Neutral
Our organization should have electronic PA assessment centre	4.73	1.17	Slightly Agree
The electronic system allowed employees to link performance to business strategies.	6.03	0.59	Agree
The organization uses e-performance appraisal (computer-based assessment)	4.49	0.81	Slightly Agree
Electronic performance results are used to empower employee	5.02	0.64	Slightly Agree
Electronic performance ensures satisfactory work and attitude meet a high set of standards	5.82	0.52	Agree

Section V measuring e-Performance standards is linked to research Objective 4 which aims to develop e-performance systems guidelines or a model that can be used in the wider Arab world. Implementing Electronic Performance standards including the performance of e-performance over manual performance, having Electronic PA assessment centre and using Electronic Performance results are very critical to analyse the e-performance standards for wider Arab world.

This is the main dependent variable of this study. The E-performance Assessment (EPA) approaches are designed and run according to international standards is highly and most responded in the study. This variable has a mean of 4.03 and standard deviation of 0.59.

The employees' voice that the electronic performance appraisal results are linked to the internal promotions system in the organizations has a mean of 3.73 and the standard deviation is 1.17.

 Table 6.4E
 Distribution frequency of e-performance study variable, (AI Raisi et al. 2011)

As shown in Tables 6.4A to 6.4E the distribution frequency of the e-performance studies for the entire five dependent and two independent variables (perceived

usage and perceived ease of use) are explained with statistical analysis in the following sections.

## 6.5 Analysis of variance (ANOVA)

The one-way analysis of variance (ANOVA) procedure produces a one-way analysis of variance for a quantitative dependent variable by a single factor (independent) variable. Analysis of variance is used to test the hypothesis that several means are equal. This technique is an extension of the two-sample t-test. In addition, trends can be used across categories (SPSS for Windows, 1998)

One-way ANOVA tests were conducted on the sample demographics. Section I of the questionnaire is to test for any mean variances caused by a non-hypothesized variable such as age, gender, education level, and so on. The results of the one-way ANOVA analyses, conducted with excluding cases list wise for missing values, is summarized in Table 6.5 below. The subjects' characteristics variables including gender, age, UAE nationality, and job experience were all entered into the ANOVA analyses.

Each of these exogenous variables was entered into the ANOVA analysis as independent variable against the main variable main variables of the study – PM, EPM, PA, EPA, and PS. The values entered for each of these variables was the aggregate mean. The aggregate mean of a variable was computed by adding the score of each individual item measuring that variable and dividing the total by the number of items added. For example, for the EPM variable, the aggregate mean was computed by the following formula:

## EPM Aggregate mean = ( $\Sigma$ Scores for items PM, EPM, PA, EPA and PS) / 5

Using the aggregate mean in the analysis of variance is more accurate than using the total score, because the number of items used to measure each variable is different. Therefore a subject's total score on a variable that has more items in its scale may be higher than another variable's total score with fewer items in its scale. This might give the wrong impression that the subject's self-reported evaluation of the first variable is higher than the second.

Variables		PM	EPM	PA	EPA	PS
Gender	F	0.687	0.278	2.531	0.679	0.026
	Sig.	0.010	0.042**	0.000***	0.140	0.267
Age	F	1.402	0.317	0.372	0.285	0.008
	Sig.	0.185	0.08**	0.192	0.162	0.185
UAE	F	1.397	1.678	1.761	0.705	0.825
National	Sig.	0.381	0.278	0.077	0.254	0.273
Experience	F	2.462	1.364	1.742	0. 655	3.027
	Sig.	0.000***	0.000***	0.000***	0.02**	0.008***

**Table 6.5** Summary of analysis of variance (ANOVA) between subject characteristics and study variables

*** Strong significance	(p< 0.001)
** Moderate significance	(p< 0.01)

\* Weak significance (p< 0.5)

The results of the ANOVA analyses summarized in Table 6.6 above indicate that experience and age has measurable variation of means between categories. Subjects' high years of experience tend to bestow similar evaluation for e-performance variables of Performance Measurement (PM), e-Performance Measurement (EPM), Performance Assessment (PA), Electronic Performance Assessment (EPA), and Electronic Performance Standards (EPS).

Similarly, respondents with high years of experience tend to rate their level of performance measurement, e-performance measurement, performance assessment, electronic performance assessment, and electronic performance assessment with the same degree. There was no significant variation associated with the nationality, age, or gender with the level of performance measurement, performance assessment, electronic performance assessment, electronic performance measurement, performance measurement, performance measurement, performance assessment, electronic performance assess

Overall, the results of the ANOVA tests identify three no-hypothesized independent variables (factors) that affect the e-performance variables. The different categories for level of education, field of study, and experience all caused significant variance of the mean of the dependent behaviour intention variable. Because of the nature of the

ANOVA analysis, these results cannot confirm predictor-predicted relationships between the exogenous variables and the study variables.

Consequently, the researcher decided to include the exogenous subject characteristic variables in the regression model to test their significance as predictors of performance assessment, performance measurement, e-performance standards and e-performance measurement variables, and e-performance assessment variables. The results of the different regression analyses are presented in the following sections.

## 6.6 Regression results (model testing)

Linear regression estimates the coefficients of the linear equation that depicts the relationship between the predictor and the predicted variables. It involves one or more independent variables that best predict the value of the dependent variable. Regression analysis is usually conducted to test the validity of the hypotheses. The observed significant level, often called p value, is the basis for deciding whether or not to reject the null hypothesis (Mendenhall and Smith, 2011)

Draper and Smith (1998) explain linear regression analysis as the relationship between two variables: X – the independent variable and Y – the dependent variable. The goal of linear regression is to find the line that best predicts Y from X. Linear regression does this by finding the line that minimizes the sum of the squares of the vertical distances of the points from the line. The steps in performing a regression analysis are:

- Formulate the null hypothesis. The null hypothesis (H0) is therefore that 'Y is independent of X, therefore the slope of the regression line is 0'.
- Calculate the test statistics. A regression line is actually a running series of means of the expected value of Y for each value of X.

The p value is calculated from an F test. It is the probability that a statistical result as the one observed would occur if the null hypothesis were true. The F statistic is the

ratio of the two mean squares. When the F value is larger and the significance level is smaller (smaller than 0.05 or 0.01), the null hypothesis can be rejected. That is to say, a small significance level indicates that the results probably are not due to random chance (Cann, 2003).

For the regression analyses to be accepted, we assumed that for each value of the independent variables, the distribution of the dependent variable is normal. The variance of the distribution of the dependent variable is constant for all values of the independent variables. The relationship between the dependent variable and each independent variable is linear and all observations are independent (Shepherd, 1998). As shown in Table 6.6

Dep. Vari.	R	R <sup>2</sup>	F	Sig. (p)	Ind. Vari	ΔR <sup>2</sup>	Beta ª	т	Sig. (p)
	0.402	0.501	46.30	0.132	ΡM	0.28 3	0.302	3.28	0.046*
	0.365	0.421	67.21	0.006**	EP M	0.32 8	0.485	1.45	0.001**
PU	0.431	0.363	77.31	0.157	PA	0.46 5	0.290	1.13	0.055*
	0.521	0.664	92.53	0.003** *	EPA	0.38 0	0.216	2.33	0.002**

**Table 6.6** Summary results of the regression tests using perceived usage (PU) as independent/predicted variable

<sup>a</sup> βeta reported is the standardized regression coefficient

\*\*\* Strong significance (p< 0.001)

- \*\* Moderate significance (p< 0.01)
- \* Weak significance (p< 0.5)

 $<sup>\</sup>Delta R^2$  is the change in the  $R^2$  statistics when the independent variable is entered into the model (stepwise)

As shown above, Perceived Usage (PU) has a strong significance with Electronic Performance Measurement (EPM) having F = 67.21 with p = 0.006\* and  $\beta$ eta = 0.485. This shows that e-performance measurement is based on e-performance standards and there is a close correlation between e-performance measurement and Perceived Usage (PU).

Electronic Performance Measurement (EPA) having F = 92.53 with  $p = 0.003^*$  and  $\beta$ eta = 0.216 has a strong significance with Perceived Usage (PU). This shows that e-performance assessment is based on e-performance standards and there is a close correlation between e-performance measurement and Perceived Usage (PU). As evident from the analysis, the Electronic Performance Assessment is more related to Electronic Performance Standards and Electronic Performance Measurement.

As explained in Chapter 4 Research Methodology, five factors (significant) were analysed as the five factors that would enhance the use of e-performance. Using the e-performance model, the five predictors of acceptance (mean, standard deviation, coefficients, t and probability) are as shown below in Table 6.7.

No	Predictor	Mean	S.D	Coefficient	Т	Probability
1	PM – Performance Measurement	5.71	0.83	0.245	1.641	0.751
2	PA – Performance Assessment	5.66	0.92	0.387	0.841	0.801
3	EPS – Electronic Performance Standards	5.51	0.61	1.175	2.352	0.915
4	EPM – Electronic Performance Measurement	4.89	1.12	0.241	1.071	0.302
5	EPA – Electronic Performance Assessment	4.93	1.36	0.054	0.801	0.021

**Table 6.7** Predictor statistics for e-performance system in UAE using perceived usage and perceived ease of use as independent variable

$$[R^2 = 0.92, n = 168, f = 8.03]$$

Analysis of variance (ANOVA) was also conducted and the test statistic F was found as 8.03. The  $R^2$  is 0.98, and the adjusted  $R^2$  is 0.92. This means that 92% of the variations in the criterion (acceptance) are accounted for by the changes in the predictor variables. Due to the varied distribution and errors committed during the survey process, 3% variation has also been accommodated into the analysis. So, using the F value will use the linear regression equation to test the hypothesis.

In the analysis, studying the five variables above, which are the decisive factors that affect the employee usage of the e-performance system? There are five dependent variables like performance measurement, performance assessment, electronic performance assessment, electronic performance standards of the responders. The two independent variables are perceived usage and perceived ease of use.

Applying the result of the linear regression analysis, which places the employees' Perceived usage of e-performance system (X) and the influencing five factors (Y), the equation is:

X = 0. 147 (Y1) + 0.401(Y2) + 0.194 (Y3) + 0.551 (Y4) + 0.621 (Y5)

- X = Assessment of Perceived Usefulness (PU)
- Y1 = Performance Measurement (PM)
- Y2 = Electronic Performance Measurement (EPM)
- Y3 = Performance Assessment (PA)
- Y4 = Electronic Performance Assessment (EPA)
- Y5 = Electronic Performance Standards (EPS)

The Applying the result of the linear regression analysis, which places the employees' Perceived Ease of Use of e-performance system (Z) and the influencing five factors (Y), the equation is:

Z = 0.136 (Y1) + 0.385(Y2) + 0.175 (Y3) + 0.543 (Y4) + 0.603 (Y5)

Z = Assessment of Perceived Ease of Use (PEU)

Y1 = Performance Measurement (PM)

Y2 = Electronic Performance Measurement (EPM)

Y3 = Performance Assessment (PA)

Y4 = Electronic Performance Assessment (EPA)

Y5 = Electronic Performance Standards (EPS)

The equation was tested for validity in two ways. The first was to test for the existence of a linear relationship between the five predictor variables and the criterion variable (Al Raisi, 2011).

The next test was an examination of the coefficient of determination (R-squared) and adjusted R-squared values are estimates of the 'goodness of fit' of the line. They represent the percentage variation of the data; the closer the points to the line, the better the fit. Adjusted R-squared is not sensitive to the number of points within the data. R-squared is derived from: R-squared =  $100 \times SS$  (regression) / SS(total) where:

- SS (regression) describes the variation within the fitted values of Y, and is the sum of the squared difference between each fitted value of Y and the mean of Y. The squares are taken to 'remove' the sign (+ or -) from the residual values to make the calculation easier.
- SS (total) describes the variation within the values of Y, and is the sum of the squared difference between each value of Y and the mean of Y.

### 6.7 Performance measurement (PM)

To study the performance measurement of the employees, the following predictors were used:

No	Predictor	Mean	Coefficient	Т	Probability
1	Performance result is used to improve employee skills	5.84	0.845	2.052	0.328
2	Mentoring is used to improve employee skills and development and correction.	4.22	0.642	0.402	0.054
3	Each key position in the organization has electronic performance formats on their system	4.25	0.536	0.551	0.012
4	Continuous personal development of employees	5.37	0.603	3.531	0.078
5	Providing performance feedback to employee	5.57	0.532	4.031	0.274
6	Employee performance and improvement	4.63	0.421	4.399	0.156

**Table 6.8** Predictor statistics for performance measurement dependent variables like perceived usage and perceived ease of use as the independent variable

- A. Predictor (Aggregate): Performance result is used to improve employee skills, Mentoring is used to improve employee skills and development and correction, each key position in the organization has electronic performance formats on their system, Continuous Personal Development, Providing performance feedback to employee and Employee performance and improvement
- B. Dependent Variable: Perceived Usage and Perceived Ease of Use

As shown above in Table 6.8, the Perceived Usage and Perceived Ease of Use variable is used as the dependent variable. The f value = 7.84, hence the null hypothesis is rejected because the cut-off point is 4.40. This means that the use of the e-performances systems and its assessment is evident to the end users and is

positively related to the acceptance of the system. The users are very positive and felt that the new system can make their performance process more easy and simple.

The main support is for 'Performance result is used to improve employee skills' and this variable has a mean of 5.84 and probability of 0.845. There is also a huge voice that 'Providing performance feedback to employee' which has a mean of 5.37 and probability of 0.532.

		Frequency	%
	Disagree	30	17.60
	Slightly Disagree	37	22.53
Valid	Neutral	20	10.56
	Slightly Agree	34	20.49
	Agree	46	28.87
Total		168	100%

Table 6.9 Statistics for performance measurement (PM) as dependent variable

As Table 6.9 shows, 67 responders (40.13%) state that they are not satisfied with the performance measurement standards in their organizations; 10.56% are neutral – about 20 responses of total 168 responses; and 48.59% agree that performance measurement techniques in the UAE organizations are not up to the international mark.

Performance Measurement (PM) Variables	Independ	ent Variabl	es
renormance measurement (FM) variables	PA	EPA	EPM
Electronic performance appraisal is the effective means by which an organization discovers qualified people	0.003**	0.003**	0.025**
The organization uses vocational education for employee development in relation to electronic performance results	0.532	0.286	0.104
There is a growth in the use of the electronic performance results to support training and development programmes	0.026**	0.015*	0.002*
Electronic performance system is used as an attraction tool to attract high calibre people	0.328	0.319	0.005**
Electronic performance ensures satisfactory work and attitude meet a high set of standards	0.001**	0.03**	0.005*

**Table 6.10** Summary of significance for PM, EPM, PA, EPA, EPS as predictors of performancemeasurement (PM) variable with the independent variables like perceived usage and perceived easeof use

\*\*\* Strong significance (p< 0.001)

\*\* Moderate significance (p< 0.01)

\* Weak significance (p< 0.5)

Table 6.10 above shows the relationships with the highest level of significance between 'electronic performance result used to improve employee skills' and the independent variables of Performance Assessment (0.026), Electronic Performance Assessment (0.003), and Electronic Performance Standards (0.018).

The perceived usage and ease of use variables are very strongly related to 'growth in the use of the electronic performance results', 'electronic performance ensures satisfactory work', and 'electronic performance appraisal is the effective means by which an organization discovers qualified people'.

The table above establishes and clarifies the individual performance measurement (PM) variables items with the other independent variables of the study. It is evident from the table that no independent variable showed strong significance with the mentoring variable of performance measurement.

	Mean	Std. Err of Mean	Median	Mode	Standard Deviation
Electronic performance appraisal is the effective means by which an organization discovers qualified people	5.26	0.27	5.00	5	0.61
The organization uses vocational education for employee development in relation to electronic performance results	4.88	0.18	6.00	5	1.36
There is a growth in the use of the electronic performance results to support training and development programmes	5.35	0.16	5.00	6	0.95
Electronic performance system is used as an attraction tool to attract high calibre people	5.03	0.15	4.00	4	1.13
Electronic performance ensures satisfactory work and attitude meet a high set of standards	4.51	0.12	4.00	4	0.75

Table 6.11 Statistics for performance measurement (PM) as dependent variable

As explained in Table 6.11 above, the responders have a huge support for 'There is a growth in the use of the electronic performance results to support training and development programmes' with a mean of 5.35, median of 5 and mode of 6. The growth of performance measurement is highly evident in the outlook of the responders. The responders highly support 'Electronic performance appraisal is the effective means by which an organization discovers qualified people' and see eperformance as a tool to improve and strengthen employee skills. This variable has a mean of 5.26, median of 5, and mode of 5. The standard deviation is 0.61.

'Electronic performance system is used as an attraction tool to attract high calibre people' has a good support from the responders with a mean of 5.03, standard error of mean of 0.15, median of 4, and mode of 4. The standard deviation of the variable is 1.13.

Exogenous Variables	Beta <sup>a</sup>	Т	Sig. (p)
Gender	0.303	0.257	0.174
Age	0.209	0.358	-0.002**
UAE National	0.311	0.138	0.183
Higher Level of Education	0.402	0.022	0.003**
Experience in Years	0.892	0.173	0.07**

Table 6.12 Effect of the exogenous variables (gender, age, education...)

 on performance measurement (PM)

<sup>a</sup> βeta reported is the standardized regression coefficient

\*\*\* Strong significance (p< 0.001)

\*\* Moderate significance (p< 0.01)

\* Weak significance (p< 0.5)

Table 6.12 above identifies a strong positive significant association between Higher Level of Education at the 0.003 level of significance, Age at the 0.002 levels of significance, and Experience at the 0.07 level of significance with the Performance Measurement variable (PM). This means that respondents with higher levels of education, higher age groups, and more years of experience reported higher use of the Performance Measurement.

Experience in Years is at the 0.07 level of significance and gender is at the 0.002 level of significance with the Performance Measurement variable. The age and the UAE national variable are not significantly related to the Performance Measurement variable. As explained, there are only significant associations between the Experience in Years and gender with Performance Measurement (PM).

#### 6.8 Performance assessment (PA)

To study the performance Assessment (PA) from the employees, the following predictors were used.

No	Predictor	Mean	Coefficient	Т	Probability
1	Do you believe that performance appraisal is linked to overall goals and strategies of an organization	6.03	0.653	2.661	0.452
2	Performance appraisal is used to identify the skill gaps in the organization	5.73	0.313	5.042	0.253
3	Our organization should rely only on external electronic PA centres	5.46	0.368	-0.362	0.048
4	The organization uses vocational education for employee development in relation to electronic performance results	6.05	0.289	2.432	0.214
5	Linking electronic performance to strategy	4.15	0.432	3.399	0.386

 Table 6.13 Predictor statistics for performance assessment (PA) variables

$$[R^2 = 0.83, n = 168, F = 8.03, Cut Off = 4.42]$$

- A. Predictor (Aggregate): Belief that Performance Appraisal is linked to overall goals and strategies of an organization, Performance Appraisal is used to identify the skill gaps in the organization, Our organization should rely only on External Electronic PA Centres, The organization uses vocational education for employee development in relation to Electronic performance results, Linking electronic performance to strategy
- B. Dependent Variable: Perceived Ease of Use and Perceived Usage

As shown above in Table 6.13 the Perceived Ease of Use and Perceived Usage are the dependent variables. The f value = 8.03, hence the null hypothesis is rejected because the cut-off point is 4.42. This means that performance assessment (PA) is evident to the end users and is positively related to the ease of the use of the system and the perceived usage of the e-performance systems. Since e-performance deals with Web-based performance, it is widely accepted in the UAE. The responders are very positive and feel that the e-performance system can make their performance process more easy and simple.

Barformanoo Accomment (BA) Variables	Independent Variables			
Performance Assessment (PA) Variables	PM	EPA	EPS	
Belief that performance appraisal is linked to overall goals and strategies of an organization	0.026**	0.003**	0.018**	
Performance appraisal is used to identify the skill gaps in the organization	0.013**	0.008*	0.000***	
Our organization should rely only on external electronic PA centres	0.429	0.295	0.013	
The organization uses vocational education for employee development in relation to electronic performance results	-0.345	0.430	0.219	
Linking electronic performance to strategy	-0.221	0.02**	0.051*	

**Table 6.14** Summary of significance for PM, EPA, EPS as predictors of performance assessment (PA)

\*\*\* Strong significance (p< 0.001)

\*\* Moderate significance (p< 0.01)

\* Weak significance (p< 0.5)

The summary of the results in Table 6.14 above clarifies the relationships individual items possess with the variables of the study. The Performance Assessment (PA) variables of 'Belief that performance appraisal is linked to overall goals and strategies of an organization' have a moderate significance of Performance Measurement (PM) and Electronic Performance Assessment (EPA). 'Performance appraisal is used to identify the skill gaps in the organization' has a moderate significance of Performance Performance Assessment (PM), weak significance of Electronic Performance Assessment (EPA), and strong significance of Electronic Performance Standards (EPS).

It is evident from the table that the other Performance Assessment (PA) variables showed weak significance with the study variables of Performance Measurement (PM), Electronic Performance Standards (EPS), and Electronic Performance Assessment (EPA).

		Frequency	%
	Disagree	29	17.60
	Slightly Disagree	36	22.53
Valid	Neutral	19	10.56
	Slightly Agree	33	20.49
	Agree	45	28.87
Total		162	98.61
Unanswered		3	1.39
Total		145	100.0

Table 6.15 Statistics for performance assessment (PA) as dependent variable

As shown in Table 6.15, 57 responders (40.13%) which includes 25 responses (17.60%) and 32 responses (22.53%) state that they are not satisfied with the performance measurement standards in their organizations. 10.56% are neutral and 48.59% (includes 29 responses (20.49%) and 41 responses (28.87%) agree that performance measurement techniques in the UAE organizations are not up to the international mark.

Exogenous Variables	Beta <sup>a</sup>	Т	Sig. (p)
Gender	0.173	0.182	0.011*
Age	0.028	0.038	0.294
UAE National	0.213	-0.182	0.143
Higher Level of Education	0.401	0.281	0.005**
Experience in Years	0.382	0.305	0.017*

 Table 6.16 Effect of the exogenous variables (gender, age, education...) on performance

 assessment (PA)

<sup>a</sup> βeta reported is the standardized regression coefficient

- \*\*\* Strong significance (p< 0.001)
- \*\* Moderate significance (p< 0.01)
- \* Weak significance (p< 0.5)

Table 6.16 above identifies a strong positive significant association between Higher Level of Education and Performance Assessment (PA) at the 0.005 level of significance. This means that respondents with higher levels of education reported use of the Performance Assessment.

Experience in Years is at the 0.017 level of significance and gender is at the 0.011 level of significance with the Performance Assessment variable. The age and the UAE national variable are not significantly related to the Performance Assessment variable. As explained, there are only significant associations between the experience in years and gender with Performance Assessment (PA).

Predictor	Mean	Coefficient	т	Probability
Employees are given their performance scores via intranet to know their weakness and strengths	4.81	0.561	2.153	0.194
Electronic performance exceptional work and attitude far exceed standards	5.23	0.393	1.609	0.459
Electronic performance appraisal results are linked to the internal promotions system in the organizations	4.98	0.486	1.012	0.173
Electronic performance approaches are designed and run according to international standards	5.17	0. 609	1.112	0.268
The management strongly believe that electronic performance is a major source for organization's competitive advantage	5.46	0.368	-0.362	0.148

## 6.9 E-Performance Assessment (EPA)

Table 6.17 Predictor statistics of e-performance assessment aggregate variables

A. Predictor (Aggregate): Employees are given their performance scores via intranet to know their weakness and strengths, Electronic performance ensures exceptional work and attitude far exceed standards, Electronic performance appraisal results are linked to the internal promotions system in the organizations, Electronic performance approaches are designed and run according to international standards, The management strongly believe that electronic performance is a major source for organization's competitive advantage.

B. Dependent Variable: Perceived Ease of Use and Perceived Usage

As shown above, the electronic performance is more effective than manual performance and the electronic performance results is used to empower employee. The responders state that the electronic performance has a strong influence on the organization and has a mean of 4.81 and coefficient of 0.561. The employees state that the electronic performance appraisal results are linked to the internal promotions system in the organizations and have a mean of 4.98 and probability of 0. 648. Electronic performance ensures exceptional work and attitude far exceed standards also has a high support with a mean of 5.23 and coefficient of 0.393.

The f value = 7.25, hence the null hypothesis is rejected because the cut-off point is 4.24. This means that the e-performance standards are evident to the end users and positively related to the acceptance of the system. The users have a great faith in and expectations for the e-performance system and feel that the business strategies of the organization can be achieved through the e-performance system.

Variable	Substandard Coefficients		Standardized Coefficients	т	Sig.	
Vallable	В	Std. Error	Beta		Siy.	
Employees are given their performance scores via intranet to know their weakness and strengths	0.238	0.218	0.285	1.202	0.321	
Electronic performance exceptional work and attitude far	0.051	0.266	0.208	0.362	0.106	

exceed standards					
Electronic performance appraisal results are linked to the internal promotions system in the organizations	0.492	0.173	0.368	1.281	0.026
Electronic performance approaches are designed and run according to international standards	0.353	0.176	0.051	1.912	0.003**
The management strongly believe that electronic performance is a major source for organization's competitive advantage.	0.185	0.142	0.269	2.153	0.024*

Table 6.18 Predictor statistics for e-performance standard (EPA) variables

Table 6.18 identifies that moderate strong significant association between the electronic systems allowed employees to link performance to business strategies and the e-performance assessment (EPA) dependent variable. There are weak significant associations between the electronic performances results are used to empower employee, electronic performance is more effective than manual performance, and the e-performance assessment (EPA) dependent variable.

The other variables of the e-performance standards variables like e-performance appraisal (computer-based assessment), electronic performance ensures satisfactory work and attitude meet a high set of standards, electronic personal assessment centre, EPA is used to identify the skill gaps in the organization have no significance have weak or low significance with the e-performance assessment (EPA) dependent variable.

		Frequency	%
	Disagree	26	15.56
Valid	Slightly Disagree	35	21.83
	Neutral	24	14.03
	Slightly Agree	27	16.19
	Agree	50	32.39
Total		162	98.61
Unanswered		2	1.39
Total		164	100.0

Table 6.19 Statistics for e-performance assessment (EPA) as dependent variable

As shown in Table 6.19 above, 61 responders (37.32%) state that they do not agree that the e-performance standards are up to international standards. 14.08% are neutral and 48.59% agree that e-performance standards in the UAE organizations are following international standards.

Exogenous Variables	Beta <sup>a</sup>	Т	Sig. (p)
Gender	0.154	-0.128	0.219
Age	0.113	0.714	0. 342
UAE National	-0.032	0.152	0.073
Higher Level of Education	0.142	0.292	0.00***
Experience in Years	0.196	0.394	0.003***

 Table 6.20 Effect of the exogenous variables (gender, age, education...) on e-performance standards (EPS) based on perceived use and perceived usage as independent variables

<sup>a</sup> βeta reported is the standardized regression coefficient

\*\*\* Strong significance (p< 0.001)

\*\* Moderate significance (p< 0.01)

\* Weak significance (p<0.5)

Table 6.20 above identifies a strong positive significant association between the current job level and e-performance standards (EPS) at the 0.00 level of

significance. This means that respondents with higher levels of education reported use of the e-performance system. The genders (female) do not share a strong relation with the importance and usefulness of e-performance standard variable as is evident in the 0.292 value of T. There is also a strong positive significant association between the experience in years and e-performance standards (EPS) at the 0.003 level of significance. This means that respondents with higher levels of experience reported the importance of the e-performance system.

## 6.10 E-Performance Measurement (EPM)

In this section the results of e-performance measurement are presented.

No	Predictor	Mean	Coefficient	Т	Probability
1	Electronic performance appraisal is the effective mean by which an organization discovers the qualified people	4.93	0.342	0.922	0.167
2	The organization uses vocational education for employee development in relation to electronic performance results	5.18	0.529	0.728	0.273
3	There is a growth in the use of the electronic performance results to support training and development programmes	5.32	0.642	1.512	0.076
4	Electronic performance system is used as an attraction tool to attract high calibre people	4.31	0.811	1.034	0.369
5	Electronic performance ensures satisfactory work and attitude meet a high set of standards	5.77	0.421	3.608	0.297

Table 6.21 Predictor statistics for e-performance measurement variables

$$[R^2 = 0.71, n = 144, F = 7.54, Cut Off = 3.07]$$

A. Predictor (Constant): Electronic performance appraisal is the effective means by which an organization discovers the qualified people, Organization uses vocational education for employee development in relation to electronic performance results, There is a growth in the use of the electronic performance results to support training and development programmes, Electronic performance system is used as an attraction tool to attract high calibre people, Electronic performance ensures satisfactory work and attitude meet a high set of standards.

B. Dependent Variable: Perceived Usage and Perceived Ease of Use

As shown above in table 6.21 the electronic performance assessment (EPA) variable is used as the dependent variable. The f value = 7.54, hence the null hypothesis is not rejected because the cut-off point is 3.07. This means that the impact and effectiveness of the e-performances systems is evident to the end users and is positively related to the acceptance of the e-performance systems.

Exogenous Variables	Beta <sup>a</sup>	Т	Sig. (p)
Gender	0.15	-1.401	0.643
Age	-0.121	-2.381	0.532
UAE National	0.098	-1.251	0.392
Highest Level of Education	0.07	2.15	0.003***
Experience in Years	0.02	3.513	0.00***

**Table 6.22** Effect of the exogenous variables (gender, age, education...) on e-performance

 measurement variables

<sup>a</sup> βeta reported is the standardized regression coefficient

\*\*\* Strong significance (p< 0.001)

\*\* Moderate significance (p< 0.01)

\* Weak significance (p< 0.5)

Table 6.22 above identifies a strong positive significant association between experience in years and e-performance measurement at the 0.00 level of significance. Moderate relation exists between highest level of education and e-performance measurement at the 0.00 level of significance. This means that respondents with higher levels of education and experience in years reported more usage of the e-performance system. In other words, the higher management respondents reported less their compatibility with the e-performance systems and the younger staff is more compatible with the new technologies and can accept their use in their day-to-day work.

The compatibility of a new technology is to a large extent the subjective judgement of the decision-makers. The more a new technology is perceived to be compatible with existing technology, the higher the confidence in mastering the new technology and the more positive the attitude that can be derived. As shown in the above analysis, a Web-enabled e-performance system is accepted by a large proportion of IT users.

Variables	PM	PA	EPS	EPM	EPA
Gender	NR	Strong Negative	NR	NR	NR
Age	Moderate Negative	NR	NR	NR	NR
UAE National	NR	NR	Moderate Negative	NR	NR
Level of Education	Strong Positive	NR	Strong Positive	Strong Positive	Strong Positive
Experience	Strong Positive	NR	Moderate Positive	Strong Positive	Strong Positive

Table 6.23 Summary of the relationships between exogenous variables and main study variables

Table 6.23 above summarizes the final relationships identified between the study variables and the exogenous variables. Respondent's level of education was the most significant personal characteristic influencing the performance measurement, performance assessment, electronic performance standards, electronic performance measurement, and electronic performance assessment.

Experience in years was another significant personal characteristic influencing the performance measurement, performance assessment, electronic performance standards, electronic performance measurement, and electronic performance assessment. No relation was seen with the performance assessment variable and the respondent's level of education, UAE national and experience in years.

Negative associations were established on three occasions. Gender was negatively associated with performance assessment variable. Age was negatively associated with performance measurement variable. UAE nationals were negatively associated with e-performance standards.

# 6.11 E-Performance Standards (EPS)

The other variables of the e-performance standards variables like e-performance appraisal (computer-based assessment), electronic performance ensures satisfactory work and attitude meet a high set of standards, electronic personal assessment centre, EPA is used to identify the skill gaps in the organization have no significance or have weak or low significance with the e-performance assessment (EPA) dependent variable.

		Frequency	%
	Disagree	22	15.56
Valid	Slightly Disagree	31	21.83
	Neutral	20	14.03
	Slightly Agree	23	16.19
	Agree	46	32.39
Total		142	98.61
Unanswered		2	1.39
Total		144	100.0

**Table 6.24** Statistics for e-performance standards (EPS)

As shown in Table 6.24 above, 53 responders (37.32%) state that they do not agree that the e-performance standards are up to international standards. 14.08% are neutral and 48.59% agree that e-performance standards in the UAE organizations are following international standards.

Exogenous Variables	Beta <sup>a</sup>	Т	Sig. (p)
Gender	0.154	-0.128	0.219
Age	0.113	0.714	0. 342
UAE National	-0.032	0.152	0.073
Higher Level of Education	0.142	0.292	0.00***
Experience in Years	0.196	0.394	0.003***

 Table 6.25 Effect of the exogenous variables (gender, age, education...) on e-performance standards (EPS)

<sup>a</sup> βeta reported is the standardized regression coefficient
\*\*\* Strong significance (p< 0.001)</li>
\*\* Moderate significance (p< 0.01)</li>
\* Weak significance (p< 0.5)</li>

Table 6.25 above identifies a strong positive significant association between the current job level and e-performance standards (EPS) at the 0.00 level of significance. This means that respondents with higher levels of education reported use of the e-performance system. Gender (female) does not share a strong relation with the importance and usefulness of e-performance standard variable as is evident in the 0.292 value of T. There is also a strong positive significant association between the experience in years and e-performance standards (EPS) at the 0.003 level of significance. This means that respondents with higher levels of experience reported the importance of the e-performance system.

## 6.12 Results of the research model

Based on the analysis of the data in the previous section the results for the hypotheses are tested and the outcomes of these hypotheses are presented as follows:

The data analysis shows that performance measurement has positively and significantly influenced users' satisfaction.

Therefore hypothesis [H1a] Performance measurement will positively and significantly influence user satisfaction is justified.

Performance Measurement Variables	
Performance result is used to improve employee skills	5.84
Mentoring is used to improve employee skills and development and correction	4.22
Each key position in the organization has electronic performance formats on their system	4.25
Continuous personal development of employees	5.37

Providing performance feedback to employee	
Employee performance and improvement	4.63
Aggregate of PM Variables	5.11
Coefficient of PM Variables	0.401

The analysis of the results shows the certain degree of satisfaction in terms of eperformance measurement with reference to user satisfaction.

# Therefore Hypothesis [H1b] E-performance system measurement will positively and significantly Influence user satisfaction.

E-Performance Measurement (EPM) Variables	
Electronic performance appraisal is the effective means by which an organization discovers qualified people	5.26
The organization uses vocational education for employee development in relation to electronic performance results	4.88
There is a growth in the use of the electronic performance results to support training and development programmes	5.35
Electronic performance system is used as an attraction tool to attract high calibre people	5.03
Electronic performance ensures satisfactory work and attitude meet a high set of standards	4.51
Mean of E-Performance Measurement	5.02
Aggregate of EPM Variables	0.290

During the empirical analysis of the data the results reflect that in organizations the performance system assessments have significant positive relationship with intentions to use performance systems.

Therefore Hypothesis [H2a] Performance system assessment is expected to have significant positive relationship with intentions to use e-performance is verified.

Performance Assessment (PA) Variables	
Do you believe that performance appraisal is linked to overall goals and strategies of an organization	
Performance appraisal is used to identify the skill gaps in the organization	5.73
Our organization should rely only on external electronic PA centres	5.46

The organization uses vocational education for employee development in relation to electronic performance results	6.05
Linking electronic performance to strategy	4.15
Aggregate of PA Variables	5.15
Coefficient of PA variables	0.410

The analysis reveals that e-performance system assessments have strong relationship with intention to use e-performance system.

Therefore Hypothesis [H2b] E-performance system assessment is expected to have significant positive relationship with intentions to use e-performance is verified.

E-Performance Assessment (EPA) Variables	
Employees are given their performance scores via intranet to know their weakness and strengths	4.81
Electronic performance ensures exceptional work and attitude far exceed standards	5.23
Electronic performance appraisal results are linked to the internal promotions system in the organizations	4.98
Electronic performance approaches are designed and run according to international standards	5.17
The management strongly believe that electronic performance is a major source for organization's competitive advantage	5.46
Aggregate of EPA Variables	4.97
Coefficient of EPA Variables	0.585

During the data collection organizations were asked to indicate the value of eperformance standards. The results show that e-performance standards guide system usage has very strong relationship. Therefore Hypothesis [H3] E-performance standard will positively and significantly guide to system usage is justified.

E-Performance Standards (EPS) Variables	
Electronic performance appraisal is the effective mean by which an organization discovers qualified people	4.93
The organization uses vocational education for employee development in relation to electronic performance results	5.18
There is a growth in the use of the electronic performance results to support training and development programmes	5.32
Electronic performance system is used as an attraction tool to attract high calibre people	4.31
Electronic performance ensures satisfactory work and attitude meet a high set of standards	5.77
Aggregate of EPS Variables	4.84
Coefficient of EPS Variables	0.598

#### **CHAPTER 7**

## PROPOSED PERFORMANCE APPRAISAL SYSTEM FOR UAE GOVERNMENTAL ORGANIZATIONS

#### 7.0 Introduction

The aim of this chapter is to present an e-performance model based on the results and analysis generated from the previous chapters. Performance management systems are about establishing a culture in which individuals and groups take responsibility for the continuous improvement of business processes and of their own skills and contributions. Therefore, the core elements of the proposed eperformance management system presented in this chapter may be described as a process that consist of employees, managers, and the people that manage the process. The e-performance systems described above identify major components that have a vivid impact on the efficiency and effectiveness of system usage and perceived usefulness. The sought benefit to the operations of governmental organizations may include the following: improving service delivery through decentralization and institutional restructuring, strengthening the policy formulation and monitoring process with the facilitation of communications and information sharing between the departments.

# 7.1 Proposed performance appraisal system for UAE governmental organizations

It is evident from the analysis in the previous chapters that the objective of this study is to create highly efficient performance measurement system that can ultimately contribute to better organizational performance. During the course of this research, a study and evaluation was carried out of various organizational e-performance analysis and assessment methods.

Performance management is about establishing a culture in which individuals and groups take responsibility for the continuous improvement of business processes and of their own skills and contributions. It is about sharing expectations. Managers can clarify what they expect individuals and teams to do; likewise individuals and teams can communicate their expectations of how they should be managed and what they need to do their jobs (Fernandes and Awamleh, 2006; Bamford, 2010). Interviews with managers, employees, and personnel alike, emphasized that any proposed model for the e-performance system must contain the characteristics described below.

Based on the analysis of data presented in the previous chapter, the proposed model in Figure 7.1 shows a statistical significance between performance e-performance management, performance assessment, management, eperformance assessment, and performance standards with both perceived usefulness and perceived ease of use. Such significance means there is an important relationship between performance management, e-performance management, performance assessment, e-performance assessment, and performance standards on the one hand, and perceived usefulness and perceived ease of use on the other.

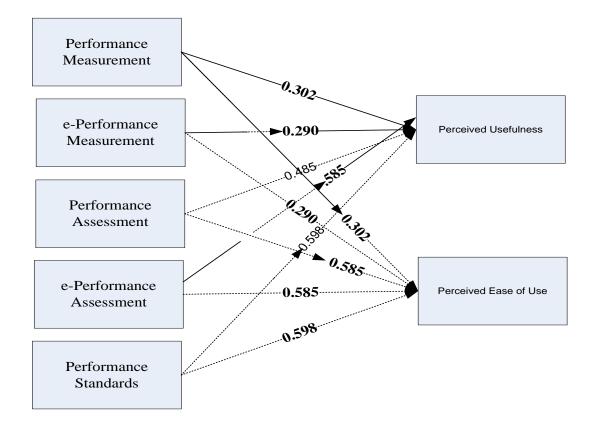


Figure 7.1 Implemented Model for the E-Performance System

Therefore, the e-performance appraisal systems proposed above identify major components that have a vivid impact on the efficiency and effectiveness of system usage and perceived usefulness (AI Raisi et al. 2009). The sought benefit to the operations of governmental organizations may include the following: improving service delivery through decentralization and institutional restructuring; strengthening the policy formulation and monitoring process with the facilitation of communications and information-sharing between the departments, then extending to companies and government departments; enhancing professionalism in the public and private sector by increasing the capacity of the organizations to attract and retain qualified staff; and improving financial management and accountability. Modern companies are forced to introduce modern budgetary processes, promoting good governance and combating corruption.

The objectives of the proposed e-performance system above are to drive organizational results by directly linking employee performance and rewards with

maximum objectivity while contributing to an organization's financial and business objectives. The application of the system seeks to achieve goal linking capabilities driving alignment among missions, initiatives, and departmental goals, multidocument functionality enabling multi-layer and 360-degree feedback, supporting unique sets of business rules and approval processes for different departments within the organization. The e-performance system may be adjusted to suit various functions of governmental organizations, direct the employee development process with workflow in an easy-to-use, Web-based environment, providing for efficient feedback mechanisms for both managers and employees more frequently, while simultaneously reducing the risk associated with non-standardized assessments through the availability of real-time graphical reports to ensure visibility into the process.

The proposed e-performance model supports Karrer and Gardner's (2004) concept of an efficient and effective e-performance system as it is structured to improve performance assessment, e-development, e-interaction, and e-support, and encompasses scalability, interactive mechanisms, and tools aiming at e-learning and skills development.

The required ease of use considered cultural limitations. Therefore, it is a Webbased, self-service solution built as a self-service application for both managers and employees to achieve higher collaborative plan performance, adequacy in assessing competencies as set by the organization rather than the individual, and to link strategic organizational objectives to employee performance results and goals, track performance progress throughout the performance period, leverage HR writing tools, such as Results Writer, Language Checker, Spell Checker, and development tips, rate and weight results and competencies, leverage pre-integrated performance and competency content, track performance review deliverables with alerts and reports, complete assessments for results, behaviours, and competencies, and view embedded, clear graphical reports for such functions as status dashboard, rating distributions and status summary. The perceived system benefits in the proposed model stem from the fact that it is a competency-based system that measures people not only on goal attainment but also on the very competencies that are required for their role. This also supports Rettab et al.'s (2009) view that an e-performance system must be able to support all the required goals from each and every employee, with competencies and competency ratings that will help achieve success.

The system will reduce cultural biases or cronyism as it allows for group assessment rather than the conventional individual assessment of potential candidates as it can quickly show if the potential candidate has the skills needed for the job, and can provide the necessary training and development a candidate needs in order to acquire missing skills. The competency library and ratings are stored in the core HRMS system so that other processes such as learning, talent searches, and succession planning can leverage these information and data, which also concurs with Ramlall's (2003) view of an effective e-performance system.

Although the proposed e-performance management system is designed for UAE governmental organizations, this system may be utilized as a single-system solution that works for all countries, regions, departments, and individuals, if modified to fit the cultural characteristics of the individual organization. Finally, the adaptability of the proposed system may be leveraged across other cultural platforms to deliver consistency of features mentioned above. The inherited attributes of the proposed system are to reduce the number of manual process, lower cost to process each process, tight alignment between the organization culture and its employee, increased contract compliance, better management and efficient information flow, coordinated migration to cost-effective technology, and automates end-to-end performance processing.

#### 7.2 Chapter summary

Based on the analysis of data presented in the previous chapter, the proposed model in Figure 7.1 shows a statistical significance between performance management, e-performance management, performance assessment. eperformance assessment, and performance standards with both perceived usefulness and perceived ease of use. Such significance means there is an between performance management, important relationship e-performance management, performance assessment, e-performance assessment, and performance standards on the one hand, and perceived usefulness and perceived ease of use. The sought ease of use considered cultural limitations, therefore, it is a Web-based, self-service solution built as a self-service application for both managers and employees to achieve higher collaborative plan performance, adequacy in assessing competencies as set by the organization rather than the individual, link strategic organizational objectives to employee performance results and goals, track performance progress throughout the performance period, and leverage HR writing tools. The adaptability of the proposed system may be leveraged across other cultural platforms to deliver consistency of results.

#### **CHAPTER 8**

#### **CONCLUSIONS AND FURTHER RESEARCH**

#### 8.0 Conclusion

The results of this research achieved by the data collected from the UAE governmental organizations show that there are a number of elements ranging from cultural to managerial, that directly influence workers' performance depending on their organizational, cultural, and interpersonal behavioural characteristics. Incentives and rewards for instance must be aligned with business units and organizational objectives to achieve successful performance management systems. Since performance management is the primary method for evaluating workers, gaining first-hand understanding of the challenges facing the contemporary workforce is a primary concern for both managers and organizations.

The results of this study also show that the implications of performance management practices on employees are complex, largely because of the changing organizational cultures, structures, and advancements in technological network systems that connect people in more ways than ever before, and because of the changing nature of the skills required from modern employees. Furthermore, modern organizations are required to become far more agile than ever before. This adds to the complexity of modern workplaces and the capacity needed in modern employees. Managing the expectations of both the organization and the employee is a difficult task for modern managers. Performance management systems, particularly e-performance management systems, are expected to close the gap in expectation between the organization and the worker. For instance, modern workers expect to be highly trained in whatever task they are expected to perform, possess highly specialized skills, and to perform multi-tasks as required by their employers with minimal retraining.

The findings also confirm that modern organizations are under constant pressure led by shareholders to increase shareholder value, reduce cost, increase productivity,

and increase employee creativity. Hence, modern workers' ability to keep up with changes in modern organizations whether in the private or public sector is largely dependent on number of cultural, financial, and technological capabilities available to modern workers. More work is being outsourced internationally and the modern geographies of the newly emerging workforce represent a nation's ability to strategically respond to current market needs. Although a country such as the United Arab Emirates enjoys the capability to develop its own workforce, it is a net importer of skilled and specialized labour. This in turn is causing serious demographic shift in the structure of the population that will impact on future generations born and raised as UAE nationals.

Additionally, the results of this study further demonstrate that systems such as e-PMS are a relatively new phenomenon in the UAE, compared to their Western counterparts. The literature also notes that the UAE has undergone changes on business, social, and economic levels, and this has occurred rapidly and on a massive scale. This highlights that, in general, the Arab region is suffering from a knowledge crisis, and it is this knowledge crisis that has led them only recently to latch on to new technologies such as e-PMS. The lack of knowledge in the region is a key reason why e-PMS results were generally below target, as it is a relatively new technology that they are still trying to grapple with and adjust to.

Physically and developmentally Arab organizations are at a different stage of development to their Western counterparts and thus the slower adaption by Arab firms is also likely to contribute to the below target results. Thus, when considering the cultural and historical differences between the two regions, in fact despite being below average, the UAE organizations are in fact doing fairly well in relation to e-PMS so far, considering that it is relatively new.

Therefore it can be said that e-PMS in the UAE is still in its infancy, and Arab organizations in the UAE are still in the experimental stages of e-PMS, trying to find the best way to embark on e-PMS, and this experimental approach has led to an almost ad hoc approach being adopted. There is no problem with such an experimental approach to e-PMS. Indeed this is actually one of the best ways for a

firm to perfect their e-PMS system, as it means that they learn as they go along, instead of taking large risks in terms of money on large-scale training and technology, which could be catastrophic in an unpredictable business environment.

Organizational culture also needs to be addressed, as currently the Arab firms are showing some level of resistance to e-PMS, by being unsupportive in a number of ways. Therefore education and training regarding e-PMS need to start from the top, so that it first becomes acceptable to the organization, and then this acceptability and motivation will then filter down through to lower level employees.

However, as an alternative explanation for these results, there is no doubt that Arab culture may also play a crucial role in the large-scale below target results. According to Hofstede (1994) Arab culture can be categorized as being highly risk-averse. It may be the case that Arabs in general view e-PMS as risky, with the potential to create job insecurity, as it will reveal their true performance. Thus from the outset, Arab users may not be as enthusiastic about e-PMS as their Western counterparts because the ultimate purpose of e-PMS is to monitor performance.

Based on the premise that there is a severe knowledge management problem in UAE governmental organizations, the results which show low satisfaction ratings for younger e-PMS users (those under 20 years of age) should be expected, as this low satisfaction rating is most likely attributable to a lack of experience and training, which is making them dissatisfied and unconfident in general with technologies such as e-PMS. Likewise, the same dissatisfaction is mirrored in those users who are only educated to high school level or have less than one year's work experience, and therefore it appears that lack of training and education in e-PMS systems is largely to blame of dissatisfaction with e-PMS systems. Al-Ali (2008) concurs with these findings as he asserts that lack of skills, training, and education are strong obstacles for Arab citizens entering the UAE workplace and being satisfied within it.

It is also interesting to note the disparity of satisfaction ratings for e-PMS between private and public sector organizations, as it appears that public sector organizations are far more like to have above target satisfaction levels, while the private sector has strong below target levels. This trend is explained by AI-Ali (2008), who states that in

general UAE workers dislike the private sector and are dissatisfied with it because it is money driven and very ruthless in many aspects, and they prefer and are more satisfied with working in the public sector.

This represents a strong cultural attitude of UAE governmental workers and is well ingrained. Furthermore the UAE organizations are becoming more aggressively managed, as its economy becomes more competitive and cut-throat (Rettab et al., 2009). One reason for the higher dissatisfaction in the private sector may be that private UAE firms may be using e-PMS systems in a way that creates fear or job insecurity by scaring its users into feeling monitored as their main aim is profit. In contrast it is likely that public sector Arab organizations are using it in a much more open way, merely to be more efficient and monitoring employees in an unthreatening way, because profit is not the main focus of public organizations. This is in line with Wells et al. (2007) who assert that when e-PMS is offered to employees as a way to better themselves and the organization as a whole, it will be accepted more positively. Therefore, a key to better response for e-PMS in Arab organizations is the way they market their e-PMS to their employees, the less intimidating the better. It seems that Arab public organizations are doing well in this regard. In terms of comparing this entire work with other works on the same topic, this is extremely difficult as the nature of this work is unique, and there is no other work wholly similar to it.

There is no doubt that culture plays a key role in human performance. This is especially true in e-performance in a nation such as the United Arab Emirates. This study supports Rapaille's (2007) argument that culture is the manifestation of human intellectual capacity, which is reflected in human activities. This study further concurs with Kotter's (2011) argument that all human activities are governed by a set of values, which in turn forms human culture, as shown in the examination of the cultural impact on performance in governmental organizations in the United Arab Emirates, and the impact of cultural norms on performance.

This study further confirms the findings of the literature presented by Hofstede and Lytras (1980), Leidner and Kayworth (2008), Omar (1992), and Koumpis (2009) that

issues of technology adoption and use are sensitive to cultural characteristics. This study also confirms that a number of important factors such as perceived easy to use, perceived usefulness, social expectations from the user, and perceived transparency are highly relevant to the acceptance of appraisal systems. Additionally, these factors are also influenced by external environmental forces such as regulation, culture, business, and economics.

This research contributes to the available literature as there is a distinct shortage of relevant academic papers that target the issue of governmental e-performance systems and papers focusing on e-performance in a UAE (Arab) context are actually non-existent. Therefore, much of the literature was only semi-relevant, as it failed to address the importance of the cultural and social environment in the UAE. The overarching problem is that much of the academic literature is based on Western examples.

Of relevance was Panina and Aiello's (2005) study, which acknowledges that national culture is a defining factor in the success of e-performance systems, and that this factor should be fully considered when designing and implementing any such system (Panina and Aiello, 2005). This highlights the fact that national culture does affect performance systems, as hypothesized in the UAE case in this study, and there is a need to create a culturally aware e-performance model. While initially appearing to highly relevant, a number of methodological issues actually reduce Panina and Aiello's significance for this research. Firstly, as this work is based on a literature view, there is little primary field data to prove and support this model, which the authors themselves acknowledge. Secondly, Panina and Aiello's (2005) paper does not directly deal with Arab culture in its research, and this therefore limits its use in this particular research. Panina and Aiello (2005) base their research on Hofstede's (1997) cultural framework, which does not mention Arab culture, and has also been heavily criticized by many as being an inadequate framework (Panina and Aiello, 2005).

As noted earlier Ramlall (2003) studied the effect of e-performance systems on governmental staff members in Greece, and found that while it did indeed improve

employee performance, it also simultaneously caused negative behaviour such as deception, because employees felt very exposed and under pressure to perform due to the e-performance system which they seemed to feel threatened by. Ramlall's (2003, 2007) study is supported by high quality field data, but a number of methodological issues reduce the pertinence of the study to this research. Ramlall used the social constructivism paradigm to analyse and interpret the results, and as this type of paradigm closely links the sample with its social context, this means that the results are context-specific to Greece, and cannot really be applied to any culture which differs from it profoundly. This is the case with Arab culture, which consequently reduces the applicability of Ramlall's research as it is case specific and ethnocentric in nature.

This study has acknowledged that Norhayati and Siti-Nabiha's (2009) work looks at the effectiveness of performance management systems in publicly owned organizations in the non-Western setting of Malaysia, and thus helps to break the trend of ethnocentric and Western bias amongst performance management research. Their research found performance management systems to have a limited effect on Malaysian public organizations' performance (Norhayati and Siti-Nabiha, 2009) and thus shows that different cultures are likely to respond to performance management systems in different ways. However, despite Malaysia being a predominantly Muslim country (as is the UAE), this Far Eastern country has a culture very different to the UAE and therefore its pertinence is reduced. Furthermore Norhayati and Siti-Nabiha, (2009) paper centres on performance management systems in general and does not directly tackle the issue of e-performance systems, and this further reduces the usability of this work for the intended research.

#### 8.1 Avenues for future research

There are many avenues for future research. One possible future research area would be to address and examine the sophisticated relationship between the variables identified in this study.

Secondly, in order for these results to be generalizable future research could take into account the situations in other developed countries and results can be compared for further outcome.

Thirdly, this study recommends that future research should use in-depth interviews along with survey questionnaires in order to more fully understand individuals' attitude to e-PMS usage.

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## APPENDIX-1

# Qualitative findings analysis generated from interviews

Managers	Employees
Urgent need for e-performance	Urgent need for e-performance
management system	management system
Ease of use and usefulness of the e-	Ease of use and usefulness of the e-
performance system is essential to	performance system is essential to
implementation	implementation
Cultural forces preventing the	Cultural forces preventing the
implementation of e-performance	implementation of e-performance
Cultural force creating fear of the new system	Managers are preventing the utilization of e-performance systems due to cultural reasons
Managers think that e-performance	All agree that e-performance system
system will be threat to their existence	will create objective assessment
All agree that current performance	All agree that current performance
assessment is biased and non-	assessment is biased and non-
objective	objective

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3	1	2	0	7.5	5	3	3	5	4	3	2	2	4	5	2		2
4	1	2	1	2.0	4	4	4	4	2	4	3	3	5	4	3	1	1
5	1	1	1			2	5	2	1	5			3		3	3	3
6	0	-				1	3	3	3	3		4	3		4	4	3
7	1	2				3	3	2	1	3		5		3	5	5	4
8	0	2			3	4	4	3	3	4	3	5			5	3	2
9	0					5	2	4	3	4	1	4	4	-	3		1
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8	1	1						4	5	3			3	5	5		1
9	0	2	-			1	4	2	4	3		. 1	4		4	3	3
20	1	4				3	2	1	2	4	1	3	5		2	4	3
21	1	3	1	5.0	3	4	3	3	3	2	3	1	5		3	5	4
22	0	4	1	2.0	3	3	3	1	5	1	4	3	4	3		1	5
23	1	3	0	2.0	4	4	4	3	4	3	5	4	2	4	3	3	5
24	0	3	1	3.0	4	2	5	4	2	1	5	5	3	5	2		4
25	1	2	0	2.0	3	1	3	5	3	3	4	3	5	3	5	5	2
26	1	2	0	2.5	5	3	4	3	3	3	2	3	4		4	1	3
27	0		1	0.0		1	5	4	4	4	3		2		2		3
28	0			2.0		3	5	5	2	5		3	3	4	1	3	
9	0						4	3	1	5		4		5	4	4	1
30	1	3					2		3	4	2	2			3		3
31	1	2				1	3	2	3		1	1	3		4	5	4
32	1	2				3		5	4	2	3	3		1	2		5
33	0						3	4	5	4	1	1	5			2	
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# **APPENDIX-2** Screen shot of SPSS software showing the data entry

## APPENDIX-3 Screen shot of SPSS variables

Aame		= 🛿 🏄 Width	Decimals	±⊑ ≶@ Label	Values	Missing	Columns	Align	Measur
gender	Type Numeric	_	O	Gender	{O, female}	None	8	Right	Scale
aqe	Numeric		0	Age	(0, 17-22)	None	8	Right	Scale
national	Numeric	8	0	UAE National	(0, No)	None	8	Right	Scale
exp	Numeric	8	1	Work Expierence in years	None	None	8	Right	Scale
pa_link	Numeric		0	Performance Appraisal is linked to overall goals & strategies	{1, Strongly Disagree}	None	8	Right	Scale
ep_im_sk	Numeric		0	Electronic performance is used to improve employee skills	{1, Strongly Disagree}	None	8	Right	Scale
ep_manua			0	Electronic performance is more effective than manual	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric		0	Mentoring is used to improve employee skills	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric		0	Each Key position in organisation has electronic performance formats	{1, Strongly Disagree}	None	8	Right	Scale
pa_futur	Numeric		0	PA Process identifies future skills	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric		0	Training & Development is planned by performance appraisal	{1, Strongly Disagree}	None	8	Right	Scale
pa_gaps	Numeric		0	PA is used to identify the skill gaps in organization	{1, Strongly Disagree}	None	8	Right	Scale
epa_qual	Numeric	8	0	Electronic Performance Appraisal in an organisation discovers qualified people	{1, Strongly Disagree}	None	8	Right	Scale
el nw as	Numeric	8	0	Electronic netwrok is seen as an asset in organization	{1, Strongly Disagree}	None	8	Right	Scale
epa_org	Numeric	8	0	Organization should have electronic PA assessment center	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric	8	0	Organisation should rely only on external PA Centers	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric	8	0	Electronic Performance result is used as a motivator	{1, Strongly Disagree}	None	8	Center	Scale
	Numeric	8	0	No link between performance strategy and organisation recruitment	{1, Strongly Disagree}	None	8	Right	Scale
-	Numeric	8	0	Organisation uses an apprentice system as a tool of evaluation	{1, Strongly Disagree}	None	8	Right	Scale
es_link	Numeric	8	0	Electronic system allows employees to link performance to business strategies	{1, Strongly Disagree}	None	8	Right	Scale
voc_edu	Numeric	8	0	Organization uses vocational education for employee development	{1, Strongly Disagree}	None	8	Right	Scale
cpd_jobs	Numeric	8	0	CPD is a requirement for many jobs	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric	8	0	Work is performed accurately and neatly	{1, Strongly Disagree}	None	8	Right	Scale
-	Numeric	8	0	Organisation uses e-performance appraisal.	{1, Strongly Disagree}	None	8	Right	Scale
grow_epr	Numeric	8	0	There is a growth in the use of e-performance results	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric	8	0	Employees are given their scores via intranet.	{1, Strongly Disagree}	None	8	Right	Scale
emp_know	Numeric	8	0	Employees have specific content knowledge	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric	8	0	Training should focus on employee specific electronic skills.	{1, Strongly Disagree}	None	8	Right	Scale
ep_ex_wa	Numeric	8	0	Electronic performance is exceptional work and attitude.	{1, Strongly Disagree}	None	8	Right	Scale
epa_prom	Numeric	8	0	E-performance appraisal results are linked to internal promotions	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric	8	0	Electronic performance system is used to attract high caliber people.	{1, Strongly Disagree}	None	8	Right	Scale
es_ind	Numeric	8	0	Electronic skills is the first area for an individual's performance problems	{1, Strongly Disagree}	None	8	Right	Scale
pa_obj	Numeric	8	0	Performance appraisal objectives are considered important part of overall business objectives.	{1, Strongly Disagree}	None	8	Right	Scale
	Numeric	8	0	Employee performance appraisal is an important component in change process	{1, Strongly Disagree}	None	8	Right	Scale
epr_empo	Numeric	8	0	Electronic performance results is used to empower employee	{1, Strongly Disagree}	None	8	Right	Scale
ep_work	Numeric	8	0	Electronic performance has satisfactory work and attitude that meet high standards	{1, Strongly Disagree}	None	8	Right	Scale
ava_ment	Numeric	8	0	Availiability of eletronic mentors and coaches are critical to performance success	{1, Strongly Disagree}	None	8	Right	Scale
job_rota	Numeric	8	0	Job Rotation is used as an integral part of performance appraisal.	{1, Strongly Disagree}	None	8	Right	Scale
	Numaric	8	0	Inh description is useful to Electronic employee performance	11 Strongly Disagrap)	None	8	Pinht	Snala

			PN	A Vai	riabl	es		PA Variables					EF	% Va	riabl	es			EPM	Varia	ables		EPS Variables					
It	ems	2.2	2.4	2.5	3.5	3.6	3.8	2.1	2.6	2.12	2.17	<b>3</b> .2	2.3	2.8	2.11	2.20	2.80	2.32	2.9	2.17	2.21	2.27	2.81	2.22	2.25	2.26	2.85	2.40
ø0	2.2	i	0.389	0.403	0.518	0.462	0.528	0.619	0.453	0.179	0.628	0.394	0.55	0.304	0.538	0.517	0.573	0.52	0.456	0.778	0.36	0.479	0.752	0.417	0.619	0.613	0.456	0.672
ble	2.4	0.389	1	0.237	0.485	0.525	0.619	0.375	0.289	0.482	0.456	0.601	0.921	0.36	0.479	0.638	0.44	0.467	0.488	0.515	0.44	0.179	0.638	0.286	0.428	0.362	0.638	0.518
ariabl	2.5	0.403	0.237	1	0.603	0.304	0.389	0.286	0.378	0.525	0.503	0.538	0.638	0.981	0.456	0.179	0.384	0.605	0.588	0.479	0.518	0.419	0.517	0.601	0.394	0.573	0.179	0.573
	3.5	0.518	0.485	603.0	1	0.488	0.63	0.376	0.557	0.456	0.361	0.57	0.237	0.482	0.573	0.503	0.638	0.428	0.752	0.502	0.304	0.529	0.847	0.638	0.503	0.482	0.517	0.468
N	3.6	0.462	0.525	0.304	0.438	1	0.52	0.462	0.613	0.672	0.419	0.427	0.361	0.289	0.304	0.378	0.468	0.362	0.62	0.286	0.36	0.375	0.672	0.921	0.237	0.503	0.44	0.378
	3.8	0.528	0.619	0.389	0.63	0.52	1	0.518	0.357	0.62	0.467	0.557	0.227	0.482	0.752	0.357	0.603	0.503	0.32	0.63	0.482	0.361	0.902	0.361	0.427	0.488	0.36	0.573
	2.1	0.619	0.375	0.286	0.376	0.462	0.518	1	0.472	0.456	0.55	0.427	0.525	0.385	0.286	0.389	0.44	0.752	0.525	0.279	0.375	0.52	0.619	0.456	0.605	0.479	0.304	0.428
	2.6	0.453	0.289	0.378	0.557	0.468	0.357	0.472	1	0.638	0.52	0.778	0.619	0.548	0.362	0.456	0.36	0.482	0.304	0.378	0.286	0.628	0.389	0.378	0.36	0.502	0.52	0.517
ΡA	2.12	0.179	0.482	0.525	0.456	0.672	0.62	0.456	863.0	1	0.672	0.392	884.0	0.518	0.601	0.638	0.179	0.417	0.44	0.479	0.361	0.427	0.418	0.921	0.179	0.237	0.638	0.286
	2.17	0.628	0.456	0.503	0.361	0.419	0.467	0.55	0.52	0.672	1	0.752	0.917	0.485	0.605	0.573	0.375	0.427	0.237	0.179	0.392	0.638	0.517	0.394	0.468	0.529	0.573	0.394
	<b>3</b> .2	0.394	0.601	0.538	0.57	0.427	0.557		0.778	0.392	0.752	1	0.63	0.378	0.482	0.613	0.525	0.378	0.36	0.378	0.628	0.752	0.357	0.427	0.515	0.482	0.419	0.482
e	2.3	0.55	0.921	0.638	0.237	0.361	0.227	0.525	0.619	854.0	0.917	0.63	1	0.628	0.456	0.638	0.237	0.482	0.619	0.394	0.605	0.304	0.389	0.918	0.518	0.378	0.847	0.361
ld.	2.8	0.304	0.36	0.931	0.482	0.289	0.482	0.385	0.548	0.518	0.485	0.378	0.628	1	0.361	0.503	0.672	0.518	0.82	0.44	0.573	0.456	0.32	0.778	0.453	0.57	0.237	0.517
ariabl	2.11	0.538	0.479	0.456	0.573	0.304	0.752	0.286	0.362	0.601	0.605	0.482	0.456	0.361	1	0.921	0.846	0.286	0.515	0.77	0.613	0.883	0.918	0.573	0.902	0.384	0.62	0.237
	2.20	0.517	0.638	0.179	0.503	0.378	0.357	0.389	0.456	0.638	0.573		0.638	0.503	0.921	1	0.384	0.503	0.538	0.847	0.55	0.362	0.304	0.417	0.456	0.752	0.36	0.638
EPS	2.30	0.573	0.44	0.384	0.638	0.468	0.603	0.44	0.36	0.179	0.375	0.525	0.237	0.672	0.846	0.384	1	0.529	0.468	0.456	0.846	0.44	0.529	0.538	0.375	0.538	0.601	0.36
	2.32	0.52	0.467	0.605	0.428	0.362	0.503	0.752	0.482	0.417	0.427	0.378	0.482	0.518	0.286	0.503	0.529	1	0.885	0.479	0.561	0.428	0.394	0.482	0.378	0.304	0.902	0.456
	2.9	0.456	0.488	0.538	0.752	0.62	0.32	0.525	0.304	0.44	0.237	0.36	0.619	0.82	0.515	0.538	0.468	0.885	1	0.427	0.394	0.672	0.488	0.36	0.63	0.517	0.482	0.427
EPM	2.17 2.21	0.778 0.36	0.515	0.479 0.518	0.502 0.304	0.286	0.63 0.482	0.279 0.375	0.378 0.286	0.479 0.361	0.179 0. <b>3</b> 92	0.378 0.628	0.394	0.44 0.573	0.77 0.613	0.847 0.55	0.456 0.846	0.479 0.561	0.427	1 0.573	0.573	0.778 0.517	0.638	0.419	0.638	0.44 0.417	0.286	0.378 0.304
EP	2.21	0.56	0.44	0.518	0.504	0.30	0.462	0.575	0.288	0.561	0.638	0.828	0.803	0.375	0.815	0.35	0.84	0.501	0.394	0.575	0.517	1	0.62	0.57	0.4467	0.417	0.82	0.504
	2.27	0.4752	0.179	0.419	0.847	0.575	0.501	0.619	0.828	0.427	0.658	0.752	0.389	0.466	0.005	0.304	0.44	0.420	0.672	0.778	0.62	0.482	0.462	0.883	0.840	0.525	0.355	0.503
-	2.31	0.732	0.850	0.601	0.638	0.921	0.361	0.819	0.378	0.921	0.310	0.337	0.918	0.52	0.518	0.504	0.538	0.554	0.36	0.419	0.57	0.77	1	1	0.921	0.237	0.378	0.305
	2.22	0.619	0.428	0.801	0.503	0.237	0.427	0.605	0.370	0.179	0.354	0.515	0.518	0.453	0.902	0.456	0.375	0.378	0.63	0.638	0.467	0.846	0.719	0.921	1	0.237	0.918	0.179
EPS	2.26	0.613	0.362	0.573	0.482	0.503	0.488	0.479	0.502	0.237	0.529	0.482	0.378	0.57	0.384	0.752	0.538	0.304	0.517	0.44	0.417	0.525	0.515	0.237	0.573	1	0.517	0.482
Ш	2.35	0.456	0.638	0.179	0.517	0.44	0.36	0.304	0.52	0.638	0.573	0.419	0.847	0.237	0.62	0.36	0.601	0.902	0.482	0.286	0.82	0.538	0.362	0.378	0.918	0.517	1	0.361
	2.40	0.672	0.518		0.468		0.573	0.428	0.517	0.286	0.394	0.482	0.361	0.517	0.237	0.638	0.36	0.456	0.427	0.378	0.304	0.847	0.503	0.32	0.179	0.482	0.361	1

# APPENDIX-4 Explaining inter-item and intra-item correlation matrix

### APPENDIX-5 Questionnaire & Total Score

Background Information
About Yourself:
a. Your Name (Optional):
b. Position in organisation:
About Your Organisation:
a Nama of Linit
a. Name of Unit b. Nature of Function: □Governmental□ Services □Others (please
indicate)
c. Number of Employees:
Less than $100  \Box$
Less than 100 □ 100 - 200 □
200 + □

Please indicate the degree of your agreement/disagreement with the following statements based on the actual practices in your organisation.

(1= strongly disagree; 2 =	Disagree; 3 = Neutral; 4	= Agree; 5 = Strongly agree)
	$\mathbf{D}$ = $\mathbf$	

Section I – Performance Measurement	1	2	3	4	5	6	7
Performance result is used to improve employee skills	0	0	0	21	52	28	63
Mentoring is used to improve employee skills and development and correction.	12	14	31	31	57	14	5
Each key position in the organisation has electronic performance formats on their system	9	17	26	34	53	16	8
Continuous Personal Development of Employees	0	0	18	21	41	41	43

Providing performance feedback to employee	0	0	11	19	42	40	52
Employee performance and improvement	0	9	21	34	71	17	12

Section II – E-Performance Measurement (EPM) Variables	1	2	3	4	5	6	7
Electronic Performance appraisal is the effective mean by which an organization discovers the qualified people	0	0	21	28	91	18	9
The organization uses vocational education for employee development in relation to Electronic performance results	0	0	12	19	89	29	17
There is a growth in the use of the Electronic performance results to support training and development programs	0	0	0	27	56	27	66
Electronic Performance system is used as an attraction tool to attract high calibres people	0	9	16	28	73	21	17
Electronic Performance ensures satisfactory work and attitude meet a high set of standards	0	0	17	25	43	39	39

Section III - Performance Assessment (PA) Variables	1	2	3	4	5	6	7
Do you believe that Performance Appraisal is linked to overall goals and strategies of an organization	0	0	14	21	89	27	15
Performance Appraisal is used to identify the skill gaps in the organisation.	0	0	7	13	84	39	22
Our organisation should rely only on External Electronic PA Centres.	0	13	26	39	66	11	8
The organization uses vocational education for employee development in relation to Electronic performance results.	0	14	31	37	64	13	8
Linking electronic performance to strategy	0	0	0	15	43	38	68
Section IV – E-Performance Assessment (EPA)	1	2	3	4	5	6	7

Variables							
Employees are given their performance scores via intranet to know their weakness and strengths.	0	0	14	21	89	27	15
Electronic Performance exceptional work and attitude far exceed standards.	0	0	12	19	81	33	21
Electronic Performance appraisal results are linked to the internal promotions system in the organizations.	0	0	0	25	53	33	57
Electronic Performance approaches are designed and run according to international standards	0	0	6	12	54	41	48
The management strongly belief that Electronic Performance is a major source for organization's competitive advantage.	0	0	0	15	43	38	68

Section V – E-Performance Standards (EPS) Variables	1	2	3	4	5	6	7
Electronic performance is more effective than manual performance.	0	0	19	23	45	48	39
EPA is used to identify the skill gaps in the organization.	0	14	31	37	64	13	8
Our organization should have Electronic PA assessment centre	0	0	18	27	69	25	24
The Electronic system allowed employees to link performance to business strategies.	0	0	0	4	43	44	73
The organization uses E – performance appraisal (computer based assessment).	0	12	22	24	59	25	21
Electronic Performance results are used to empower employee.	0	0	16	24	44	39	41
Electronic Performance ensures satisfactory work and attitude meet a high set of standards.	0	0	0	14	42	39	69

Please Note: If you are interested in receiving the Executive Summary of this study, kindly advise us of your details so that it may be forwarded accordingly.

Kindly submit the completed questionnaire, at your earliest, to the following:

Abdil Aziz Al-Raisi, e-mail: These details have been removed

Thank you for your kind cooperation in completing this questionnaire. If you have any additional comments, please feel free to indicate them.

Copies of the published articles listed in pages 4 & 5 of the thesis have been removed due to third party copyright. The unabridged version of the thesis can be viewed at the Lanchester Library, Coventry University

# **APPENDIX-7 Examiners Signatures**

Name (External Examiner):	-Date:
Signed:-	-
Name (External Examiner): DR Peter ORIOGUN	Date: 5/4/12
Signed:	14.
Name (Internal Examiner): DPL, SMALA	Date: Sth April 2
Signed:	
Name (Independent Chair): Provoce boostor de	Date:
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