Exploring the Perceived Obstacles to E-administration by Faculty Members of Eastern Mediterranean University

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ABSTRACT

This thesis aims to explore the obstacles that hinder the application and implementation of E-administration as perceived by faculty members at Eastern Mediterranean University, North Cyprus. This study examined the degree of the Human Obstacles such as the human nature, the culture of closed doors, the lack of confidence in the protection, confidentiality and security of personal transactions; and Organizational obstacles such as the nature of organizational structure and the lack of systems and legislations for electronic transactions.

The methodology used in the study was descriptive. The study used survey method by distributing questionnaires. Questionnaires that were administered in the field and returned involved 150 respondents.

The results of the study showed that human obstacles ranked higher when compared with organizational obstacles with factors such as: lack of specialized personnel in the electronic administration in the university, lack of sufficient knowledge in electronic administration technology and departments' and deans' fear for increased administrative tasks ranking top three in the human obstacle category.

The recommendation made in this study among many others is that it is very vital that the university organizes trainings, workshops and seminars for members of staff to enlighten them on the importance of E-administration and the benefits that go with it.

ÖZ

Bu araştırma e-yönetim sistemlerinin kurulumu ve uygulanması esnasında Doğu Akdeniz Üniversitesindeki akademisyen kullanıcıların algıladıkları insan ve örgütsel engelleri inceler. İncelenen engellerin başlıcaları arasında, insan doğası, kapalı kapılar kültürü, ve kişisel bilgilerin mahremiyeti konusundaki endişeler gibi insan engelleri ile örgütsel yapı ve electronik işlemler hususundaki yapısal ve hukuksal eksiklikler gibi örgütsel engeller yer almaktadır.

Tarifsel ve ankete dayalı metodolojiye dayalı bu araştırmada, veriler bir üniversitede 150 akademisyenden gelen anketler neticesinde elde edilmiştir.

Araştırma sonuçları göstermiştir ki insan engelleri, örgütsel engellere göre, daha önemli rol oynamaktadır. İnsan engelleri arasında en önemli üç faktör olarak, konusunda uzman bilişim personeli eksikliği, e-yönetim konusunda yeterince bilgi sahibi olmama, ve bölüm başkanlarının ve dekanların idari işlerin artması hususundaki endişe ve korkuları yer almaktadır.

Bu araştırma neticesinde yapılması gereken öneri, e-yönetimin önemi ve faydaları hakkında yapılacak eğitim, çalıştay ve seminerlerin, e-yönetim uygulamalarına geçecek üniversiteler tarafından kendi kullanıcı akademisyenleri için organize edilmesi gerektiğidir.

Anahtar Kelimeler: E-yönetim, İnsan Engelleri, Örgütsel Engeller, Etkinlik, Doğu Akdeniz Üniversitesi, Enformasyon ve İletişim Teknolojileri

DEDICATION

I dedicate this work to everyone who saw me through it.

ACKNOWLEDGEMENT

First and foremost I would like to thank God, my parents for the support that they have given me throughout my academic years in the university and lastly my lecturers who guided me throughout my studies.

I give special thanks to my supervisor Asst. Prof. Dr. Mehmet Islamoglu and without forgetting his research assistant,Olatunji Olaoke.

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Chapter 1

INTRODUCTION

1.1 Background of the Study

The importance of e-administration and its advantages in higher education institutions cannot be over-emphasized. As e-administration remains one of the most significant tools in modern-day administrative procedures and processes, it drives performance and reduces the administrative burden in today's organization (Najim, 2004). Similarly, e-administration facilitates among other things quick access to data and information, efficiency, accuracy and simplifying the administrative processes within the organization.

Furthermore, the impact of information and communication technology in the success and continued sustainability of e-administration through the internet contributed to the paradigm shift from the traditional administrative procedures and processes to a more proficient, effective and cost-effective way of doing things in an organization (Ghamidi, 2009). In addition, e-administration guarantees speed and objectivity in task completion also promoting and sustaining effective communication within the different units of the organization (Dosari, 2007).

However, despite these benefits highlighted, there are some obstacles that hinder e-administration in organizations. These obstacles fall within the following categories: organizational, financial, technical and human categories.

- Organizational Obstacles:

According to Zahrani (2007) organizational obstacles arise as a result of the internal structure of the organization and the pattern of flow of information within the organization. The existing central administrative system could pose as an obstacle to e-administration in terms of how the organization is run and its mode of operation. It also involves the lack of existing infrastructure to adopt and ease electronic transactions.

- Financial and Technical obstacles:

Financial and technical obstacles range from the lack of laboratories and networked computers, slow and weak internet server to lack of security for user-identity protection. Furthermore, the capital-intensive nature of electronic devices, high installation and maintenance cost of the internet and communication infrastructure among others are major hindrances to e-administration (Jemal, 2009).

- Human obstacles:

The human obstacles that hinder e-administration include confidentiality issues, closed-door management system, absence of incentives to motivate members of the organization, training and language barriers. The language barrier is exists because most times the applications are written in languages other than the potential user's language until very recently (Radwan, 2004) which makes it difficult for the user to easily adapt to its use.

However, for the purpose of this study, I shall be exploring the organizational and human obstacles to e-administration as perceived by faculty members of Eastern Mediterranean University, Cyprus.

Recently, the large volumes of data and information and the dependence on information and communication technologies (ICT) have changed the global landscape thereby having a major effect on how people relate with each other and do business, also further reducing time and distance (Kuo, 2005). Furthermore, globalization has become a major driver to this change. Most institutions around the world have adopted the application of information and communication technology as a policy to improve their educational and administrative standards and subsequently deliver high quality academic programs (O'Neil & Perez, 2002). According to the National Center for Education Statistics' report (NCES, 2000), information and communication technology has reduced some of the barriers that limit effective communication and has helped educators communicate better with each other. This shift has forced most institutions to adopt e-administration in providing an efficient service delivery. However, the successful application and implementation of e-administration is dependent on the acceptance of this new system by the staff and administrators in the university (Wright & Peirano, 2003; Sears, 2006).

Sear (2006) argues that for e-administration to become effective and deliver the expected output, it is important that administrators have the required skills to use these technologies. It therefore becomes the responsibility of the central administration of the school to help staff and students acquire the necessary skills to use this technology to improve learning. Similarly, it is also important that they open up communication channels through the university's website to improve and develop human relations among staff members and other functional units within the university (Hague & Williamson, 2009)

1.2 Research Gap

Over the years, different scholars have investigated the impact of e-administration and factors that limit its application in different universities. However, few have paid attention to the degree of importance each obstacle has on e-administration as perceived by the staff members. This study seeks to explore the human and organizational obstacles to e-administration as perceived by faculty staff members at the Eastern Mediterranean University, Northern Cyprus. It is important to note that the successful application of any information and communication technology system is largely dependent on technology and the attitude of the users in the system.

1.3 Research Objectives

• To examine the human and organizational obstacles to e-administration in Eastern Mediterranean University as perceived by faculty staff members.

• To explore the degree each obstacle hinders the implementation of e-administration as perceived by faculty members of Eastern Mediterranean University.

1.4 Research Question

• What human and organizational obstacles hinder the implementation of e-administration in Eastern Mediterranean University as perceived by the faculty members and to what degree?

1.5 The Structure of the Study

This study has five chapters, chapters one through five.

Chapter one "introduction": this chapter contains an overview of e-administration and its obstacles in organizations, giving some background information about the obstacles that limits its applications in most organizations. The study goes further to

highlight the research gaps and objective, research question and relevance of the study, and also introduced the structure of the work.

Chapter two "literature review": this chapter critically reviews the current body of knowledge on information and communication technology (ICT) and e-administration, looking at empirical and theoretical analysis.

Chapter three "methodology": copies of questionnaires were distributed with a feedback of 150 respondents and the data was analyzed using the SPSS to measure what degree each obstacle hinders the implementation of e-administration as perceived by faculty members.

Chapter four "result and analysis": in this chapter, the study discusses the findings of the analysis, with a view to determining the degree of the human and organizational obstacles to e-administration from the perspectives of faculty staff members within the context of variables that were reviewed.

Chapter five "conclusion and recommendation": this chapter presents the summary of study findings and gave a recommendation for further studies.

1.6 Significance of the Study

The findings of this study will be useful to the policy makers of the university; as it will contribute to policies that will help in the continuous improvement of administrative procedures and processes for an effective and efficient performance.

1.7 Scope of the Study

This study will only be limited to the faculty staff members of Eastern Mediterranean University during the 2014/2015 academic session.

Chapter 2

LITERATURE REVIEW

2.1 E-Administration Concept

There is no unanimously accepted definition of E-administration between scholars and researchers in academics. Different terms have been used among scholars in different discussions when referring to e-administration. Some scholars refer to it as smart administration or administration of the future. It is a vital system employed by leaders to increase productivity according to Devanathan (2009). E-administration has also been defined as a process intended to develop administrative services using a variety of electronic means (Giritli, 2009).

There are five benefits to E-administration and they are: cheaper, more, quicker, better and productive (Heeks, 2001)

• Cheaper: E-administration produces the same outputs at lower aggregate expenses

• More: E-administration produces more outputs at the same aggregate expenses

• Quicker: E-administration produces the same outputs at the same aggregate expenses in less time

• Better: E-administration produces the same outputs at the same aggregate expenses, yet to a higher quality standard.

• Productive: E-administration producing outputs.

McIndoo (2009) in his interview with George E. Pake: the head of Xerox Corporation; highlighted that, he conceived an idea of a paperless office, an office where you can work at ease using a electronic\digital system, saving time, space and be efficient.

In addition, Alan Purchase of the Stanford Research Institution emphasized in his study contributed to by McIndoo that organizations ought to lessen their expenses, by removing their research material, and boost their profitability by rebuilding and rearranging their office frameworks. It likewise portrayed a portion of the procedures utilized as a part of the electronic paperless office, for example, transcription machines, electronic clear information, and data stockpiling other than paper documentation.

McIndoos (2009) in his study clarified the innovation of paperless office as;

• QuickBooks instead of traditional ledgers;

• ACT and Outlook instead of the rolodex and other forms of written contact management

• Document scanners especially the Fujitisu Scan Snap instead of traditional scanners.

• To convert paper records to Adobe PDF

• Adobe PDF is the standard document type

• Documents are transferred via Emails

• Faxing is computer based.

2.1.1 E-administration in Educational Administration

E-administration has different sub-systems with regards to different organizations and educational institutions. Ben-Zion Barta (1995) in his study highlighted them as

sub-systems in General Administration, Payroll and financial Administration, Administration of student data, Inventory Management, Personnel record maintenance, and Library system.

However, Maki (2008) argued that administration has various subsystems like Personal Student, Resource, Financial and General Administration. Furthermore, Fredriksson & Gajek (2009) in their study highlighted that general administration and communication are the two sub-systems in ICT used in educational administration.

In relation to these, Meenakumari & Krishnaveni (2011) argued that from the evidence put forward by different scholars, administrative activities in higher institutions comprise of three subsystems namely: student administration, staff and resource administration and communication and general administration.

• Student administration

ICT application to student administration further improves the general admission procedures and operational processes within the university which in turn makes it accessible for prospective students (Obeng, 2004). Student administration starts from the procedure when the admission process commences through to the learning process. It involves admission inquiries, enrollment, time-table and schedule, communication of academic details maintained through e-media and communication of transport and hostel details (Jaleel, 2014).

- Staff and resource administration

Staff administration includes employment and allocation of faculty and staff members within the university which facilitates communication among peers and between different departments in the university. This in turn helps in making data accessible however voluminous in a quick, meticulous and impeccable manner (Obeng, 2004).

- Communication and General Administration

Magni (2009) highlighted that an effective communication system ought to be set up for the general viability of administration. In addition, ICT helps in giving an efficient system of administration in an organization. The general administration disseminates information and communicates with the different units and departments and other stakeholders of the university and also allocates resources for the effective management in the university.

2.2 E-Administration Perception

Perception in E-administration is an important factor since individual perception helps drive an individual to decide whether or not to use E-administration for day to day activities. It assists in understanding the readiness of adoption of the technology by individuals.

Perception is defined by Business dictionary (2015) as "the process by which people translate sensory impressions into a coherent and unified view of the world around them". Perception predicts the attitude of the user towards the adoption of the technology and it also influences the user-perception in terms of perceived ease of use and perceived importance (Van-Akkeren and Cavaye, 1999).

Individual support of new innovation depends on the type of innovation and individual perception of the innovation introduced to them (Zwick, 2002). Technology Acceptance Model and diffusion of innovation theory show that the perception of users and adoption of ICT acceptance are influenced through attitude, motive, interest, expectation and past experience.

2.3 E-Administration Application

Taushory (2003) in his study explained that E-administration helps decrease educational funds in terms of expenses because of the decreasing number of employees, faster communication, increasing citizens' satisfaction in dealing with e-government, and eliminating bureaucracy at work. Taushory emphasized that government performance could not improve without the electronic revolution of E-administration. His study discussed the importance of applying E-administration with regards to raising the performance and efficiency of the government.

Over the years researchers have found various barriers that hinder the implementation and the application of e-administration and these obstacles are classified into Organizational obstacles, Financial Obstacles and Human Obstacles Seresht (2009) in his study measured the effectiveness of electronic administration in Iranian Universities where the sample data included 239 faculty members and administrators. The results from the study showed that administrative obstacles that hinder the application of the electronic administration in universities are embedded in human obstacles of lack of awareness of the importance of electronic administration. Another study by Hajaia and Roud (2014) aimed at identifying the obstacles of applying electronic administration in Tafila University. The researchers conducted a research on the faculty members of Tafila University for the academic year

2013\2014 with a total population of 216, where 130 were drawn as samples. The study measured obstacles by looking into these domains:

• Organizational Obstacles

• Technical Obstacles

• Human Obstacles

• Financial obstacles

The results showed that the degree of human obstacles with a mean of (4.14) came first in importance then followed by financial obstacles with a mean of (4.24), then followed by technical obstacles with a mean of (4.16) and organizational obstacles was the least important with the mean of (3.75).

Hommadi (2008) examined the obstacles that challenged the e-administration in Saudi Arabia. His sample was 131 high school leaders, 40 school principals and 9 student assistants in a secondary school. The results highlighted that financial obstacles accounted for 87.4%, technical obstacles accounted for 80.4%, management obstacles accounted for 78.6%, software obstacles accounted for 77.2% and human obstacles accounted for 67.2%. The financial obstacles were lack of private sectors support, limit of funds from the ministry, lack of financial encouragement for the schools which slows down the progress in implementing e-administration, and lack of funding for the staff's professional development programs.

Lack of telecommunication lines, maintenance and lack of networked computers are the technical obstacles that limit the technical applications.

Management obstacles are lack of professional personnel, lack of in-service training, lack of planning, absence of the governmental regulations and procedures that help manage the process of implementation, school principal's reliance on paper documents rather than the electronic system and lack of school principals desire to apply e-administration.

And lastly software obstacles included lack of provision of new versions of software for schools and the scarcity of local software designers who are highly qualified in programming to maintain and coordinate the technological system.

2.4 Measuring E-Administration

A research by Kaylor, Deshazor & Van Eck (2001) described the qualitative and quantitative methods that best measures e-administration, e-government and e-services in a report on implementing e-services among American cities. The methods measured the following: the readiness and acceptance of e-services, quality of e-services and e-administration, level of awareness and the attitudes towards the implementation.

2.4.1 Measuring readiness and acceptance of E-services

In order to effectively understand the process of user acceptance of information systems the researcher reviewed the Technology Acceptance Model (TAM) by Davis & Venkatesh (1996). The model sought to explain the factors of user acceptance in information systems and the diffusion of technology systems. The TAM is embedded in the theory of reasoned action (Fishbein & Ajzen, 1975), which over the years is used to predict and explain user behaviors.

Table 1: Technology Acceptance Model (Venkatesh & Davis, 2000)
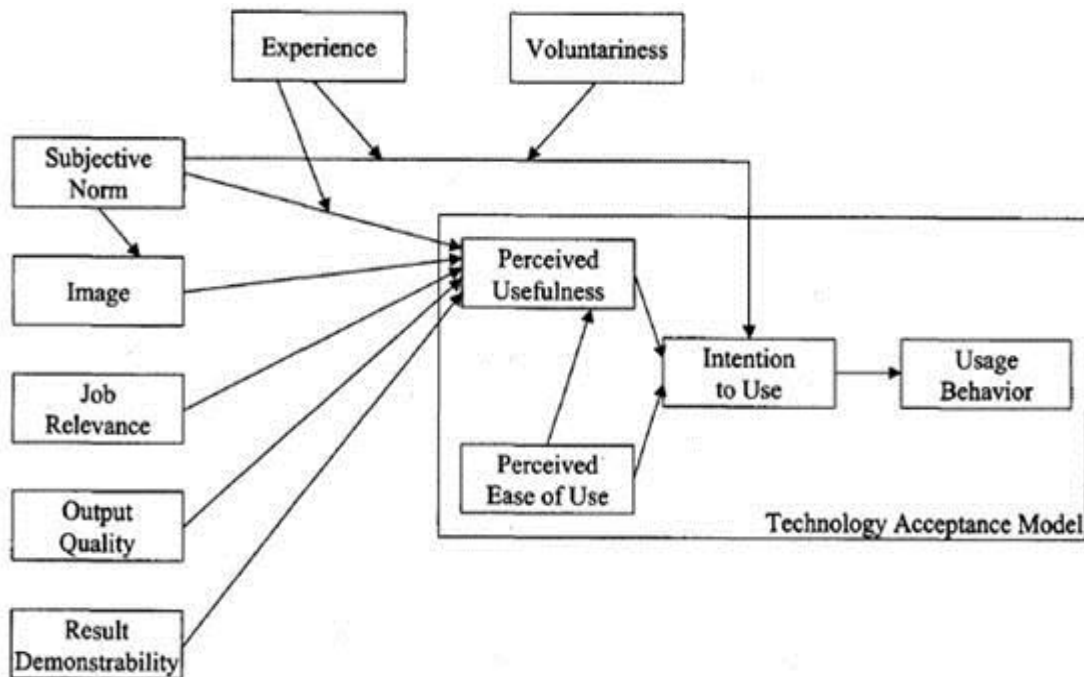
Many studies measured the acceptance and readiness of adoption of electronic systems through questionnaires or interviews. Sebetci & Aksu (2014) conducted a study on acceptance of e-movable system (e-government in Turkey system) in public institutions using the Technology Acceptance Model. A sample of 340 public institution employees was taken between January 1st, 2013 and March 1st, 2013. The researcher used the questionnaire method to collect the data in the following categories: information quality, service quality, perceived usefulness, perceived ease of use and attitude towards using and behavioral intention to use. The results showed that the Turkish public institutions have positive attitudes meaning they are positive to change.

Al-Majidi (2006) planned to quantify the school principals' level of preparation to deal with the electronic school. A survey was circulated to an irregular sample of 120

out of 476 school principals in the educational year 2004/2005. The survey comprised of 50 things under four areas: PC space, Administrative work area, Student area, and Teacher area. The result of the study showed that school principals have a high level of preparation to deal with the electronic administration.

2.4.2 Measuring quality E-service and E-administration

SERVQUAL scale (Parasuraman, Berry & Zeithaml, 1991) is commonly used to measure the service quality of e-services and e-administration. It consists of five dimensions: tangibles, reliability, responsiveness, assurance, sympathy.

• Tangibles: The presence of physical offices, hardware, staff and correspondence materials.

• Reliability: The capacity to perform the promised service constantly and precisely.

• Responsiveness: The readiness to help clients and give immediate services.

• Assurance: The information and obligingness of employees and their capacity to pass on trust and certainty.

• Empathy: Care and individualized consideration given to clients.

The importance of measuring e-service in the virtual world has become inevitable and a few studies have illustrated this. A study done by Stinglingh (2013) showed the e-service quality in a revenue authority setting. It had 811 respondents, where 59.97 percent had a positive response towards the use of electronic service while 40.3 percent had negative response towards the use of e-service rendered by South African government.

Ahmadi (2013) measured the e-service quality in universities where he researched 6 variables: responsiveness of the university's website, competence of the university's

website, quality of information on the university's website, empathy of the university's website, web assistance of the university's website and call-back systems of the university's website. He discovered that competence of the university's website had more significance in measuring the e-service quality than other variables hence the university management should pay more attention to this variable.

Morgeson (2009) led a study intended to gauge the level of quality in the government's e-administration and e-service in the United States of America. The researcher utilized information from the American consumer loyalty record. He compared ten government-operator websites with private e-business websites. A total number of 250 people were sampled, and 250 government specialists were surveyed. The outcome showed that government websites gave e-services that are less satisfactory than those given by e-business websites.

2.4.3 Measuring level of awareness

Rashid & Al-Qirim (2001) considered awareness of public policy as one of the four components that have an effect on ICT selection. Nonetheless, changes in bureaucratic frameworks especially in developing nations are essential for such advancement. Ciborra & Diego (2005) and Serour & Henderson-Sellers (2002) argued that innovation adoption makes genuine difficulties to Higher education due to the fact that innovation adoption not only addresses changes in ICT and frameworks but it involves the need to change the way Higher education institution run its functions regarding process and policies. Higher education institutions ought to be mindful of and open to the impact of new ICT and its application.

A study by Oye & Abrahim (2010) was conducted in the University of Jos Plataeu in Nigeria as a pilot study. The researcher had 100 respondents and aimed to know the awareness and use of ICT by the University academicians. It looked into these categories: effort expectancy, performance expectancy, social influence, facilitating condition, behavioral intention. The results showed that the level of awareness and acceptance were low therefore more measures were supposed to be taken in order to rectify and improve ICT.

2.4.4 Measuring Perceptions and Attitudes toward E-administration

Al-Massoud (2008) directed a quantitative study in Al-Rass Governorate in the Kingdom of Saudi Arabia. It investigated the school principals' and vice-principals' views towards the human and material necessities needed to apply E-administration to state funded schools with regards to some independent variables; school level, level of education, years of experience, and PC instructional classes. The researcher surveyed 238 school principals and vice-principals. As indicated by the outcome, the accomplishment of E-administration relies on how the schools are encouraged with unique specialists who are in fact qualified to coordinate data innovation in the schools and who effectively see how to advance E-administration within the schools' administrative systems. The outcome additionally demonstrated that school leaders and faculty members needed training on the most proficient methods to apply certain skills useful for the implementation of E-administration and to prepare them for the e-learning era.

Al-Arishi (2008) planned to quantify the perspectives towards the need of implementing e-administration in Makkah, Kingdom of Saudi Arabia. The sample comprised of 428 employees. The researcher utilized a survey method to research the participants' perception of the significance of implementing e-administration,

elements empowering the utilization of e-administration and the hindrances to its implementation. The study showed that the 27 members firmly agreed on the significance of applying e-administration with a mean of 4.33, and emphatically agreed to the factors that empower the application with a mean of 4.55.

Al-Arishi brought up that respondents needed to apply e-administration, yet they believed that certain courses of action ought to be done before the application. In his study, e-administration was distinguished as facilitator of the work and it gave off a chance time to work. He expressed that e-administration enhanced the managerial work to a high degree, encourages access to data, sorting out work, speaking with divisions, and catching up on the work done. The obligation of the administration in his study was to bolster e-administration by providing all factors that enable the application and to connect all the employees in every governmental departments, with the ability to enhance their innovation aptitudes.

Chapter 3

METHODOLOGY

3.1 Conceptual Design

This chapter gives information on the research methodology for this study. It includes: data collection, proposed analysis, importance and limitation, pilot study, the sample, research strategy and design.

This study utilized quantitative research methods, specifically the survey method, for data collection. Copies of the questionnaire were distributed to faculty members in Eastern Mediterranean University who served as the respondents to the study.

Respondents were chosen from EMU because the focus of this study was specifically Eastern Mediterranean University. The questionnaire was formed based on two obstacle categories: Human obstacles and Organizational obstacles. The study focused on different faculty members who were highly involved in the administrative system.

3.2 Data Collection

The study used paper-based traditional questionnaires for collecting primary data. The copies of the questionnaire were distributed to random respondents which formed the sample that represented the rest of the population. The researcher used a probability sampling strategy called the simple random sampling technique. This was used because of the need to get a good feedback rate for the study. Two hundred

questionnaires altogether were distributed to the respondents asking their opinions on perceived obstacles to e-administration. 75% of the questionnaires were filled and returned. A Likert scale measurement ranging from one to five (1-5) labeled Strongly Agree (1) to Strongly Disagree (5) respectively was used for all the questions.

3.3 Proposed Analysis

The data analysis was done through the use of the SPSS. A mean score was computed for the two main domains i.e. Human and Organizational factors; and threshold descriptive labels were given to each based on the following ranges: Mean ranging between 1 and 2.33 were labelled low, mean ranging between 2.34 and 3.66 were labelled medium and mean ranging between 3.67 and 5 were labelled high (Hajaia S. and Roud A., 2014). Also a reliability test for the competence of the scale was carried out using the Cronbach Alpha.

3.4 Limitations of the Study

The study had various limitations like time-factor: the researcher could not carry out a longitudinal study being a masters' thesis which should be completed under one year. A longer time frame for the study would have been preferable as a study like this should take some number of years for accurate measurement.

Furthermore, the study focused on just one university and could have been better if different universities within the same region were observed.

Some of the respondents were also worried about the confidentiality of their responses to the survey since the study was concerned with management operations. The fear of disclosing their details to higher authorities gave some respondents doubts about participating in the survey.

Another limitation was the respondent's feedback. Some of the respondents did not want to cooperate or get involved in the survey process. The respondents claimed that it was not part of their job while some stated clearly "I do not want to answer your survey". As a result of these, only 150 copies of the questionnaire were filled and returned out of the 200 copies that were distributed.

3.5 Pilot Study

The researcher gave 5 copies of the questionnaire to respondents for the purpose of a pilot study keeping in mind the end goal of testing the reliability of the instruments before carrying out the full survey. This helped to ensure that the instrument was reliable. No suggestions or corrections were made as a result of the pilot study.

3.6 Sample Design

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Webster, 1985). The sample size in this study was made up of 200 faculty members from various departments in Eastern Mediterranean University. The sample chosen was relevant to the population of the faculty members in various faculties making it sufficient to extract the right data and information.

3.7 Research Strategy and Design

The researcher used quantitative methods to extract the data. The survey method was employed by distributing copies of the questionnaire to respondents. The questionnaire was formed in accordance with the research instrument deployed by Hajaia, S. and Roud A. (2014) who evaluated the perceived obstacles to application of e-administration in university settings. The questionnaire was divided into two sections of obstacle categories: Organizational obstacles and Human obstacles. The questionnaire had a total of 15 questions with a Likert scale ranging from one to (1-

5); strongly agree (1) to strongly disagree (5) respectively. Eight questions were about Organizational Obstacles and seven questions were about Human Obstacles.

Chapter 4

DATA ANALYSIS AND INTERPRETATION

4.1 Reliability Analysis

The reliability analysis is a measurement used to depict the reliability of an item or a scale. The index reliability is as far as the extent of the score variability that is caught over the subjects or respondents relative to the total observed variability. On account of this study I am going to test the quality of my scale for the survey extending from one to five (1-5) labeled strongly agree (1) to strongly disagree (5) respectively.

The alpha should not be too high as it should have a maximum value of 0.90 because too high values can point to redundancy among the items and unnecessary duplication of content across items and also point more to redundancy than to homogeneity (Streiner, 2003). In this study the reliability test (the Cronbach α) was registered to the two variables i.e. human obstacles and organizational obstacles. The convenience of the scale ought to depend just on the uni-dimensionality. Composite score ought to be evaluated subsequent to setting up the uni-dimensionality. The general results for the human and organizational variables Cronbach α turned out to be 0.791 thus verified its reliability. The more items there are in a scale intended to quantify a specific idea, the more dependable the measurement will be.

4.2 Analysis and Discussion

In order to answer the main research question of this study i.e. (What human and organizational obstacles hinder the implementation of e-administration in Eastern

Mediterranean University as perceived by the faculty members and to what degree?) the mean, standard deviation, rank and degree for each of the obstacles were computed as shown in the table below:

Table 2: Means, Standard deviations, Ranks and Degrees for Each Obstacle Category Arranged in Descending Order

Obstacle category	Mean	Standard Deviation	Rank	Degree
Human Obstacles	2.98	0.46591	1	Medium
Organisational Obstacles	2.88	0.44498	2	Medium

The table above shows that the two main obstacle categories came with a medium degree. The human obstacle category ranked first with a mean of (2.98) and a standard deviation of (0.46591). The organizational obstacle category came in second rank with a mean of (2.88) and a standard deviation of (0.44498). Evidently the human obstacles have shown to rank first and this further emphasizes the significance of motivating and convincing the staff about e-administration.

Therefore, it suffices to say that this study is commensurate with the work of Hajaia, S. and Roud A. (2014) which indicated that there are significant human obstacles hindering the implementation of e-administration at universities.

4.3 Descriptive Analysis

The mean, standard deviation, rank and degree of each item for each obstacle category were computed as follows:

A. Human Obstacles category items are shown in the table below:

Table 3: Means, Standard Deviations, Ranks and Degrees of the Human Obstacle Category Items Arranged In Descending Order

Item No.	Item	Mean	Standard Deviation	Rank	Degree
12	Lack of specialized personnel in the electronic administration in the university	3.11	1.018	1	Medium
09	Lack of sufficient knowledge in electronic administration technology	3.07	1.257	2	Medium
13	Departments and deans fear for increased administrative tasks	3.05	1.247	3	Medium
14	Weak English language skills of some employees	2.94	1.194	4	Medium
11	Lack of specialized employees in the maintenance of automated computers	2.90	1.104	5	Medium
10	Employees fear of losing or hacking of some of data	2.90	1.236	6	Medium
15	Poor preparation and training of employees in using electronic technology	2.87	1.091	7	Medium

The table above shows that all the items in the human obstacle category came with a medium degree. Item 12 (lack of specialized personnel in the electronic administration in the university) ranked first with a mean of (3.11) and a standard deviation of (1.018) while item 15 (poor preparation and training of employees in using electronic technology) ranked last with a mean of (2.87) and a standard deviation of (1.091). This is could be related to the fact that the university lacked adequate specialized and qualified personnel for coordinating and managing the e-administration system as perceived by faculty members.

B. Organizational Obstacle category items were computed as the table shows below:

Table 4: Means, Standard Deviations, Ranks and Degrees for the Responses of
Faculty Members to the Items of Organizational Obstacle Category Arranged In
Descending Order

Item No.	Item	Mean	Standard Deviation	Rank	Degree
08	Obtaining administrative resources require heavy paper-work	3.09	1.231	1	Medium
07	Centralization in the departments of the university	3.09	1.175	2	Medium
05	Poor awareness of the importance of applying electronic administration	3.06	1.088	3	Medium
03	Vagueness of the future vision for applying electronic administration	2.93	1.094	4	Medium
04	Fear on display of confidential information when applying electronic administration	2.85	1.206	5	Medium
06	Lack of proper planning for the transition process towards electronic administration	2.82	1.037	6	Medium
01	Poor coordination between administrative centers in the university	2.62	1.085	7	Low
02	Slow response of presidency to the demands of change	2.62	1.053	8	Low

The table above also clearly showed that all items in the organizational obstacle category except item 1 and 2 scored within a medium range. Item 8 (obtaining administrative resources require heavy paper-work) ranked first with a mean of (3.09) and a standard deviation of (1.231) while item 2 (slow response of presidency to the demands of change) came in last with a mean of (2.62) and a standard deviation of (1.053). This in other words, depicts that the university system follows a strict bureaucratic system which in turns requires heavy paperwork to obtain administrative resources as perceived by the faculty members.

It should also be noted that the high rate of deviation from the mean could be related to the fact that different faculty members have widely different views on limitations to e-administration implementation in the university. This could be because of their backgrounds, skills, area of expertise or individual perceptions.

Conclusively, from the evidence above, it is observed that human obstacles and organizational obstacles do hinder the implementation of e-administration in the university with the human obstacles ranking higher in degree. This goes in accordance with the literature review in chapter 2 and agrees with a lot of the studies.

Chapter 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of the Findings

The study measured the degree of obstacles that hinder e-administration applications as perceived by users i.e. the faculty members where it aimed to explore to what degree human and organizational obstacles affect e-administration within the university.

The literature available on effectiveness of e-administration applications show that the human obstacles (including human nature, the culture of closed doors, the lack of confidence in the protection and confidentiality and security of personal transactions) and organizational obstacles (including the nature of organizational structure and the lack of systems and legislations of electronic transaction and the firm central administration) have an effect on the e-administration applications (Zahrani, 2007). The study looked to measure the perceived degree of these obstacles by faculty members in the university. The results shed light on what needs to be done by the university administration.

The results of the study showed that human obstacles ranked higher when compared with organizational obstacles with factors such as: lack of specialized personnel in the electronic administration in the university, lack of sufficient knowledge in

electronic administration technology and departments' and deans' fear for increased administrative tasks ranking top three in the human obstacle category.

Organisational obstacles on the other hand, came in second when compared with human obstacles with factors such as: obtaining administrative resources require heavy paper-work, centralization in the departments of the university and poor awareness of the importance of applying electronic administration ranking as the top three obstacles within the organizational obstacle category

5.2 Conclusion

This study sought to explore and measure the degree of obstacles to the implementation of e-administration in Eastern Mediterranean University as perceived by faculty staff members. This was done by placing emphasis on human and organizational obstacles that affects IT adoption within the university. The analysis gave evidence that these obstacles do play a role with human obstacles ranking higher when compared with organizational obstacles. The study was conducted using 150 respondents (faculty members of the university) while the SPSS (statistical package) was used for the purpose of data analysis. The study having shown that it is the human rather than organisational obstacles that pose as the higher ranking obstacle, supports the findings of earlier researches regarding this topic including the work of scholars like Hajaia and Roud (2014).

This study has clearly shown that human and organizational obstacles are present within this university and hinder the implementation of e-administration. This means that adequate steps will need to be taken by the university to address the challenges.

5.3 Recommendations

a)   Based on the top three human obstacles i.e. lack of specialized personnel in the electronic administration in the university, lack of sufficient knowledge in electronic administration technology and the departments' and deans' fear for increased administrative tasks; the university should employ a comprehensive training system for members of staff through seminars and workshops on e-administration know-how and its added advantages. Qualified specialized personnel should also be recruited to ensure the smooth running of the system and adequate maintenance of the e-admin instruments.

b)   Also, based on the top ranking organizational obstacles i.e. obtaining administrative resources requires heavy paper-work, centralization in the departments of the university, and poor awareness of the importance of applying electronic administration, it is recommended that the university streamlines its bureaucratic processes by reducing the amount of paperwork required to obtain administrative resources. Effective and qualified personnel could be employed or promoted for the purpose of delegation of responsibilities; this is in order to reduce the workload and responsibilities that is carried by the central administration of the university. Online methods of application could be adopted making procedures faster and quicker. Likewise, conducting trainings and workshops on the importance and advantages of e-administration would help the staff to be more aware of its usefulness and benefits of the adoption of e-admin systems.

c)   Finally, the university could come up with a strategic plan for transition from the traditional administration to electronic administration. It should come up with a

plan that will slowly eradicate the use of traditional administration so as to make the

faculty members adapt to the new way of administration.

REFERENCES

Ahmadi, S. A. (2013). Measurement of E-service Quality in University Website. *World of Sciences Journal*. 3, 20-30.

Al-Arishi, M.S. (2008). Possibility of Applying the Electronics Management in the General Directorate of Education at Holy Makkah (boys). *(Master thesis)*. Umm Al-Qura University, Kingdom of Saudi Arabia. Retrieved from http://libback.uqu.edu.sa/hipres/FUTXT/5693.pdf

Al-Massoud, K.S. (2008). Human and Materialistic Requirements of Applying Electronic Management In Public School From The Point Of View Of The Principals and Vice-Principals In Al-Rass Governorate. (*Master thesis)*. Umm Al-Qura University, Makkah, Kingdom of Saudi Arabia. Retrieved from http://libback.uqu.edu.sa

Al-Shammari, I. A. (2010). High School Principals' Attitudes Towards the Implementation of E-Administration in Kuwait's Public Schools. *(Doctoral Thesis)*. Indiana State University, Indiana, USA. Retrieved from http://scholars.indstate.edu

Batta, M., Ashwani, S., & Rajdeep, K. (2012). E-Governance in E-Administration. *International Journal of Computing & Business Research* (ISSN 2229-6166)

Ben-Zion, B. (1995). *Information Technology in Educational Management*. Chapman and Hall, London.

Center for Disease Control (2008). Data Collection Methods for Program Evaluation: Questionnaire. *Evaluation Briefs*.

Chadwick, A., & May, C. (2003) Interaction between States and Citizens in the Age of the Internet Governance. *An International Journal of Policy, Administration and Institutions.* 16 (2), 271-300.

Ching-Dar, L., Min-Jin, L., & Yen-Hui, L. (2011). A Move from Data-Based Towards Analysis-Based E-Administration. *International Journal of E-Education, E-Business, E-Management and E-Learning.* 1(2), 10-25.

Ciborra, C., & Navarra, D. D. (2005). Good Governance, Development Theory, and Aid Policy: Risks and challenges of e-government in Jordan. *Information Technology for Development.* 11 (2), 141-159.

Davis, F. & Venkatesh, V. (1996). A Critical Assessment of Potential Measurement Biases in the Technology Acceptance Model: Three Experiments. *International Journal of Human Computer Studies. 45*, 19-45.

Davis J., Foxall, G., & Pallister, J. (2002). *Beyond the intention-behavior mythology*: An Integrated model of recycling, *Marketing Theory*, 2(1), 29-113.

Devanathan, G. (2009). E-administration: An e-platform for E-governance to Introduce Transparency and Accountability in Governments and Organizations. *Paper presented at the annual meeting of the Southern Political Science Association, New Orleans, LA*. Retrieved from

http://www.allacademic.com/meta/p28178_index.html

Dosari, A. (2007). The Extent of the Application of Electronic Administration in

King Faisal University from the Faculty Staff Member's Point of View.

(*Master Thesis*). University of King Faisal, Saudi Arabia.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An*

Introduction to Theory and Research. Reading: Addison-Wesley.

Fountain, J.F. (2001). *Building the virtual state: Information and technology*

Institutional change. Washington, DC: Brookings Institution.

Fredriksson, U., & Gajek, E. (2009). *Ways to Use ICT in Schools to Optimize the*

Impact on Teaching and Learning. Vienna, Austria: ECER.

Ghamdi. (2009). The Reality of the Application of Electronic Administration in the

Elder Schools of Industrial City of Yanbu and the Degree of its Contribution

to Improving the Work from the Managers' and Vices' Point of View. (*Master*

Thesis). University of Umm Al-Qura, Saudi Arabia.

Giritli, N.K. (2009). E-governmentality: On Electronic Administration in Local

Government. *Electronic Journal of e-Government, 7*(1), 55-64. Retrieved

from http://www.ejeg.com

Hague, C., & Williamson, B. (2009). Digital participation, Digital Literacy and

School Subjects: A Review of the Policies, Literature and Evidence. Bristol, UK: Future lab. Retrieved from http://www.futurelab.org.uk/resources/documents/lit_reviews/DigitalParticipation.pd

Hajaia, S., & Roud, A. (2014). The Obstacles of Applying Electronic Administration In Tafila Technical University. *International Journal of Humanities and Social Science*. 4(11), 58-81.

Hazmi, A. (2002). Impediments of Using Computers in Administrative Work: A Survey Study on the Emirate of Medina. *(Master Thesis).* Naif Academy of Sciences, Riyadh -Saudi Arabia.

Heeks, R. (2001). Reinventing Government in the Information Age. *International Practice in IT enabled public sector reform. London, England*. 21.

Hommadi, M. (2008). The Obstacles Facing the Use of Electronic Administration in The Administrative Work of Secondary Schools at Holly Makkah From The Viewpoint of the Principals and Vice-principals of These Schools. (*Master Thesis).* Umm Al-Qura University, Makkah, Kingdom of Saudi Arabia. Retrieved from http://libback.uqu.edu.sa/hipres/ABS/ind791

Ismail, R., Jeffery, R., & Van Belle, J. (2011). Using ICT as a Value Adding Tool in South African SMEs. *Journal of African Research in Business & Technology*. 21, 117-130.

Jaleel, A. (2014). Administration of Information in Higher Education-Role of ICT. *International Journal of Engineering Sciences & Research*. 2277-9655.

Jamal, M. (2009). The Possibility of Applying the Electronic Management in United Nations Relief and Work Agency in Gaza. *(Master Thesis)*. Islamic University, Gaza.

Kaylor, C., Deshazor, R., & Van Eck, D. (2001). Gauging E-government: A Report on Implementing Services among American Cities. *Government Information Quarterly.* 18, 293-307.

Kumar, A., & Kumar, A. (2005). IT Based KM for Institutions of Higher Education A Need . *A weekly Journal of Higher Education in India from Association of Indian Universities.* 43(30), 122-133.

Kuo, C. (2005). Wireless Technology in Higher Education: The Perceptions of Faculty and Students Concerning the Use of Wireless Laptops. *(Doctoral dissertation)*. Retrieved from http://etd.ohiolink.edu/view.cgi?acc_num=ohiou1125521504.

Magni, M. (2009). ICT usage in Higher education. *International Technology and Development Conference*. Spain.

Maki, C. (2008). Information and Communication Technology for Administration And Management for Secondary Schools in Cyprus. *Journal of Online Learning and Teaching.* 4(3), 50-60.

McIndoo, T. (2009). Paperless Office in Perspective. A Document Management System for Today. Retrieved from http://www.scribd.com/doc/15686308/Paperless-Office-in-Perspective-A-Document-Management-System-for-Today.

Meenakumari, J., & Krishnaveni, R. (2011). Transforming Higher Educational Institution Administration through ICT. *International Journal of Advanced Computer Science and Applications (IJACSA).* 2(8), 50-60.

Morgeson, F. (2009). Does E-Government Measure Up to E-Business? Comparing End User Perceptions of U.S. Federal and E-business Websites. *Public Administration Review.* 69, 740-752.

Najim, A. (2004). *Electronic Management Strategic, Functions and Problems.* Riyadh: Almareekh Publishing House.

National Center for Education Statistics (NCES). (2000). Teachers' Tools for the 21st Century. Washington, DC: U.S. Department of Education. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000102

O'Neil, H. F., & Perez, R. S. (2002). *Technology Applications in Education: A Learning View.* Mahawah, NJ: Lawrence Elbaum, ISSN 0007-0998.

Obeng, T. K. (2004). Practical Application of ICT to Enhance University Education in Ghana. *Feature Article.* Ghana Web.

Ogbonna, J., Eze M.U., & Nkemdirim, V. (2011). Issues of E-Administration and the User Communities. *ABSU Journal of Environment, Science and Technology.* 1, 20-44.

Oye, N.D., Aiahad, N., & Abrahim, N. (2010). Awareness, Adoption and Acceptance of ICT Innovation in Higher Education Institutions. *International Journal of Engineering Research and Applications.* 1393-1409.

Parasuraman, A., Berry, L. & Zeithaml V. A. (1991). Refinement and Reassessment Of the SERVQUAL Scale. *Journal of Retailing.* 67, 420-450.

Rashid, M. A., & Al-Qirim, N.A. (2001). E-commerce Technology Adoption Framework by New Zealand. *Institute of Information and Mathematical Sciences.* 63-70.

Rogers, E. M. (1995). *Diffusion of innovations*. 5th edition. New York: Free Press.

Sears, J. H. (2006). Attitudes and Perceptions of Mississippi Career and Technology School Administrators towards Technology Integration and Their Knowledge and Use of the National Educational Technology Standards for School Administrators (NETSA). *(Doctoral dissertation).* Retrieved from http://sun.library.msstate.edu/ETDdb/theses/available/etd11082006104700/un estricted/Finaldissertation_jan_sears.pdf

Sebetci, Ö., & Aksu, G. (2014). Evaluating E-government Systems in Turkey: The Case of the E-movable System. *Information Polity*. 225-243.

Seresht, N. (2009). The Effectiveness of Applying the Electronic Administration in

    Iranian. (*Master Thesis).* University of Iran.

Serour, M.K., & Henderson-Sellers B. (2002). The Role of Organizational Culture

    on the Adoption and Diffusion of Software Engineering Process: An

    Empirical Study. *International Working Conference on Diffusion, Adoption*

    *and Implementation o*f *Information Technology.* Sydney, Australia.

Taushory, A. (2003). Electronic administration. *Alminshawi.* Retrieved from:

    http://www.minshawi.com/other/taushory1.htm

Van Akkeren, J., & Cavaye, A.L. (1999). Small Business IT Market Readiness and

    Overcoming Their Fear Factor. *Proceedings of the 10th Australasian*

    Conference on Information Systems. Wellington, New Zealand, Dec.

Webster, M. (1985). *Webster`s ninth new collegiate dictionary*. Webster Inc.

Webster's Business Dictionary (2015). Retrieved from Webster finance Inc.:

    http://www.businessdictionary.com/definition/perception.htm

Zahrani, R. (2007). Electronic Dealings in Government Agencies, Reality and

    Aspirations. Riyadh: *Institute of Public Administration*.

Zwick, T. (2002). Employee resistance against innovation. *International Journal of*

    Manpower. 23 (6), 542-552.

APPENDIX

Appendix A: Questionnaire

EASTERN MEDITERRANEAN UNIVERSITY

Thank you for making out time to take this survey. The survey is carried out by a student of the department of marketing for academic research purpose only. I fully assure you that all of the answers you provide in this survey will be kept confidential. The survey data will be reported in a summary fashion only and will not identify any individual person.

I) In the following statements, I am interested in your feelings about the non-academic systems such as the accounts office system, registrars' office and academic factors such as the teaching system, course curriculum and the library in the area of this university. For each statement, please use the scale:
1) StronglyAgree 2) Agree   3) Uncertain 4) Disagree 5) Strongly Disagree

	Item	Disagree……..Agree				
		☹			☺	
	Organizational Obstacles					
Q1	Poor coordination between administrative centers and faculty members in the university	1	2	3	4	5
Q2	Slow response of presidency to the demands of change	1	2	3	4	5
Q3	Vagueness of the future vision for applying electronic administration	1	2	3	4	5
Q4	Fear of leakage of confidential information when applying electronic administration	1	2	3	4	5
Q5	Poor awareness of the importance of applying electronic administration	1	2	3	4	5
Q6	Lack of necessary legislations needed for the application of electronic administration	1	2	3	4	5
Q7	Centralization in the departments of the university	1	2	3	4	5
Q8	Obtaining administrative resources require heavy paper-work	1	2	3	4	5
	Human Obstacles					
Q9	Lack of accurate and integrated databases	1	2	3	4	5
Q10	Weak electronic link between the university deans and departments	1	2	3	4	5

Q11	Insufficient computer proficiency among users	1	2	3	4	5
Q12	Ease of hacking the university internet	1	2	3	4	5
Q13	Weak technical support for electronic devices	1	2	3	4	5
Q14	Lack of security system to protect the database relating to the transactions of the university	1	2	3	4	5
Q15	Poor level of infrastructure for applying electronic administration	1	2	3	4	5