

THE IMPACT ON THE OPERATION OF E-DOCUMENT SYSTEM AT
HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM)

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SUPERVISOR VERIFICATION

‘I hereby acknowledge that I have read this project paper and in my opinion this work sufficient in terms of scope and quality for the award of Bachelor of Technology Management with Honours (Technology Innovation)’

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DECLARATION

“I declare that this project paper ‘The Impact on the Operation of E-Document System at Hospital Universiti Sains Malaysia (HUSM)’ is the result of my own research except as cited in the references.”

Signature :
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DEDICATION

Alhamdulillah, with the grace and blessings of The Almighty ALLAH, I manage to complete this research. First and foremost, I would like to thank and to express my deepest gratitude neither to my loving parents, Haji Nawis Ismail and Hjh. Arimi Mat Nor for their love and support throughout my life and whose words of encouragement and push for tenacity ring in my ears. Thank you both for giving me strength to reach for the stars and chase my dreams. I would also like to thank to my beloved family who had always supported me and encouraged me with good advices in order to complete my final year project (PSM) within two semesters to fulfill my Bachelor of Degree requirement and willing spent money for me. Lastly, I am felt proud to complete my Projek Sarjana Muda (PSM) by fully support and encourage by lovely parent and family.

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ABSTRACT

Government is placing increased emphasis on effective recordkeeping in both the private and public sectors. These demands are often met through the implementation of centralized electronic management solutions frequently known as e-document system. The aim of this research is to investigate the impact on the operation of electronic document systems at Hospital Universiti Sains Malaysia (HUSM). E-document system is a newly implemented system at HUSM to replace the manual system in compliance to International Organizations for Standardization (ISO) audits especially ISO 9001: 2008. The research was done at HUSM, Kelantan. It investigated how the hospital manages their document system through e-document and the effectiveness of e-document in complying the requirements set by ISO Audits involving three factors, strategic factors, social factors and infrastructure factors. Quantitative method was used in this research. The data were gathered through survey questionnaires. Questionnaires were used to obtain feedback from 80 respondents who are from top management, chief document officer, document officers and also staff of Productivity & Quality Unit at HUSM. Besides that, the implementation of this system is to further improve the performance of employees. Lastly, the results of the research will provide useful insights on the impacts on the operation of e-document system at HUSM.

Key words: E-document, International Organizations for Standardization (ISO), ISO 9001: 2008, Strategic Factors, Social Factors, Infrastructure Factors and efficient system

ABSTRAK

Kerajaan meletakkan penekanan terhadap penyimpanan rekod yang berkesan dalam kedua-dua sektor iaitu kerajaan dan swasta. Tuntutan-tuntutan ini sering dipenuhi melalui pelaksanaan penyelesaian pengurusan elektronik berpusat yang juga sering dikenali sebagai sistem e- dokumen. Tujuan kajian ini adalah untuk menyiasat kesan terhadap pengendalian sistem e-dokumen di Hospital Universiti Sains Malaysia (HUSM), Kelantan. Sistem e-dokumen adalah satu sistem baru yang dilaksanakan di HUSM menggantikan sistem manual untuk penyediaan ISO audit terutama ISO 9001:2008. Kajian ini dilakukan di HUSM, Kelantan. Ia adalah untuk menyiasat bagaimana hospital menguruskan sistem dokumen mereka melalui sistem e-dokumen dan juga ingin melihat sejauhmana keberkesanan e-dokumen menguruskan Audit ISO yang melibatkan tiga faktor iaitu faktor strategik, faktor sosial dan faktor infrastruktur. Kaedah kuantitatif dipilih sebagai kaedah metodologi dalam menjalankan kajian ini. Semua data dikumpul melalui kajian soal selidik. Soal selidik digunakan untuk mendapatkan maklum balas daripada 80 orang responden yang terdiri daripada pengurusan atasan, ketua pegawai dokumen, pegawai dokumen serta kakitangan Unit Produktiviti & Kualiti di HUSM. Selain itu, pelaksanaan sistem ini akan meningkatkan lagi prestasi pekerja. Akhir sekali, hasil penyelidikan mampu memberi pengetahuan yang berguna tentang kesan terhadap operasi sistem e-dokumen di HUSM.

Kata kunci: *E- dokumen, Pertubuhan Standardisasi Antarabangsa (ISO), ISO 9001:2008 , faktor strategik, faktor sosial , faktor infrastruktur dan sistem yang cekap.*

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

A large corporation should have a strong organizational culture that binds employees together towards achieving strategic goals. In achieving the goals, the employers and employees are driving force in determining the success of an organization. As a catalyst for the hospital industry center of excellence in education and the graduates especially in Malaysia, Hospital Universiti Sains Malaysia (HUSM) need to have a strong team to face a more challenging modernization in the future. The objectives of HUSM includes providing medical services to patients, provide learning and research facilities as a Teaching Hospital and to provide specialized services as a Medical Referral Centre. Apart from this, the mission of HUSM is to explore new areas of patient care services and becomes a medical center of excellence with the provision of high quality and advanced technology.

Conversely, in forming a strong organization, employers and employees must unite and work together so that work done will be more efficient and productivity of the organization will increase. This is in line with HUSM goal of becoming a hospital that catalyzes the development of education industry.

Achieving success in modern businesses and to sustain competitive advantage require the right application of technology and software. Companies today are relying on online document management applications to store their information.

According to Techopedia (2013), electronic document system is a software system for organizing and storing different kinds of documents. This type of system is a more particular kind of document management system, a more general type of storage system that helps users to organize and store paper or digital documents. E-document system refers more specifically to a software system that handles digital documents, rather than paper documents, although in some instances, these systems may also handle digital scanned versions of original paper documents. An electronic document management provides a way to centrally store a large volume of digital documents. Many of these systems also include features for efficient document retrieval.

Designed to store and manage and track all electronic documents and media, electronic document management system or e-document introduced at HUSM in 2013 exercises its function to store and manage all paper documents in digital form. This reduces the manual labor involved in the processes as well as allows employees to collaborate and work remotely, correspondingly reduce the amount of office space. E-document system is newly implemented at HUSM to replace the manual system for ISO Audit. Before this implementation, all the departments / units at HUSM utilized manual system to manage and monitor their works which are related to ISO Audit especially ISO 9001: 2008.

This research is conducted at HUSM, Kelantan to obtain new insights about e-document system and the impact on the smooth functioning of HUSM operation systems.

1.2 Problem Statement

There are many considerations to be taken into account when e-document system was first introduced. First is the key perceptions of staff that might affect their acceptance of e-document system which is include electronic files that are more difficult to be retrieved than paper files and filing or archival tasks are low-level tasks and should be the sole responsibility of secretarial staff (Garayoa et.al., 2002).

It is therefore essential to establish a whole new perception that assigns to all staff their responsibility in managing information for their specific role (Northern Ireland Civil Service, 2006). Di Biagio and Ibricu (2008, p. 176) advise the institution of a sound records management, disciplines being in place before e-document systems implementation, otherwise 'bad habits tend to be quickly replicated in the new environment'.

Second problem is training and support. The complete implementation of e-document system does not necessarily guarantee user adoption of the system. Without ongoing and refresher training and timely support, there is a real risk that users will simply stop using it (Maguire, 2005). Training should be one-to-one, aligned with users' jobs and responsibilities; and put into practice immediately after implementation (Williams, 2005; Middleton, 2005). Effective and timely aftercare from providers and in-house consultants (Williams, 2005) build user confidence and trust in the new system (Miller, 2005).

Lastly, change management also one of the problem. Change management has been identified as another critical factor in an e-document system implementation project because e-document system facilitates changes in the way people work, while the system itself such as the technology merely enables that change (Jeffrey-Cook, 2005). To better manage this change, a number of strategies could be developed in the areas of

cultural change, process change, consultation and collaboration on new ways of working (Ellis, 2005). Taking a strategic approach to change management increases the chances of users' acceptance of such a system (Miller, 2005) because they will grasp the benefits of the system rather than seeing it as an additional and unwanted task (Williams, 2005).

1.3 Research Questions

The research questions that related to this research are:

- 1) What are the factors affecting the implementation of e-document system at Hospital Universiti Sains Malaysia (HUSM)?
- 2) What are the impacts on the record keeping after the implementation of e-document system at Hospital Universiti Sains Malaysia (HUSM)?
- 3) How can filing systems be organized through e-document system so that users will be able to retrieve the documents as an when needed?

1.4 Research Objectives

The objectives of this research were:

- 1) To investigate the factors affecting the implementation of e-document system at Hospital Universiti Sains Malaysia (HUSM).
- 2) To determine the efficiency of e-document system in complying the requirements set by ISO Audits at Hospital Universiti Sains Malaysia (HUSM).
- 3) To identify the technology employed in e-document system at Hospital Universiti Sains Malaysia (HUSM).

1.5 Scope of the Study

This research was conducted at Hospital Universiti Sains Malaysia, Kelantan which is the statutory body that serves the community with healthcare service. The respondents comprise of top management, chief document officer, documents officers, and also staff of Productivity and Quality Unit at HUSM. The research focuses on the effective and efficiency of e-document system in complying the requirements set by ISO Audits. The implementers and users of e-document system are top management, the chief document officer and document officers of HUSM, and the accessibility of e-document system serves as a great advantage in reducing costs at HUSM. This system handles all security aspects of documents or data as it allows the staff to create and store all documents of every department / unit at HUSM in this system.

1.6 Limitation of the Study

This research is conducted at HUSM, Kelantan and limited to all items contained in the questionnaires that were distributed to and only involved the implementers and users of e-document system. Additionally, this research focused only on three (3) objectives set by the research.

1.7 Importance of the Study

The purpose of this research is to improve the system of operations at HUSM involving the use of e-document system. The implementation of e-document system can deliver, improve value to customers and enhance the HUSM's performance. The research undertaken is to prove that e-document system is more efficient which is can make sure the system that is develop are safe, cost less and easy to use.

1.8 Summary

An efficient e-document system is crucial in sustaining the competitive advantage of organizations. This is due to the fact that technology and technology transfer arising from R&D, technology adoption, technology forecasting provides new ways for getting work done. The research questions and research objectives were constructed based on the researcher's experience in industrial training and the

observations of the problems or inconsistencies that the HUSM encountered. The implementation of e-documentation at HUSM is expected to drive productivity and enhance performance of its employees besides acquiring new technology and complying with the ISO requirements.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In process to do research, literature review is very important as guidance, and it supports the act of research done. A literature review is the presentation, classification and evaluation of what other researchers have written on a particular subject. A literature review may form part of a research thesis, or may stand alone as a separate document. Although the second of these types of literature review is less extensive than that expected for a thesis, the skills required are identical.

A literature review is not simply a shopping list of what others have said. It does not and cannot refer to every piece of literature in the field. Rather, a literature review is organised according to your research objective. It is a conceptually organised synthesis which ultimately provides a rationale for further research, whether by you or by others. Literature review is a research or study that got from the reference sources such as journal, case study, book and electronic media and also from the internet.

2.2 The Effectiveness of E-document Systems

2.2.1 The plethora of names and definitions

There has been a variety of different names employed, such as: electronic records management systems, electronic document systems or electronic document and records management systems and even enterprise content management systems and enterprise knowledge management systems, in the few case studies (Fuzeau, 2005; Gregory, 2005; Loussouarn, 2005; Wilkins et al., 2007) that have been reported in the literature on the implementation of Records Management Systems.

For example, Fuzeau (2005) describes two case studies of French private sector companies using the term “electronic records management system”. Similar case studies of organisations using “electronic records management systems” are reported by Gregory (2005) and Loussouarn (2006). In other case studies, the name of the system used to manage record is a “document management system” (Schroeder Jr, 2006; Dhérent, 2006). Wilkins et al. (2007), Smyth (2005), William (2005) and Maguire (2005) all describe the implementation of an approach to enterprisewide records management called “Electronic Document and Records Management Systems”. Johnston and Bowen (2005) review a number of published and unpublished case studies about organisations that had implemented an “electronic records management system”, an “electronic document management system” or an “EDRMS”. Benfell (2002) reports on an organisation’s future approach to the integrated EDRM system from more limited EDM and ERM systems. Stringer (2006) categorises electronic records management systems into five major types on the basis of the claims made by the manufacturers themselves: Electronic Document and Records Management (EDRM), Electronic Document Management (EDM), Electronic Records Management (ERM), Enterprise Content Management (ECM) and Enterprise Knowledge Management (EKM) systems.