HRMIS AND THE FACTORS THAT INFLUENCE ITS USAGE AMONG THE STAFFS OF SABAH STATE LIBRARY

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SCHOOL OF BUSINESS AND ECONOMICS
UNIVERSITI MALAYSIA SABAH
2007

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DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF HUMAN CAPITAL MANAGEMENT (MHCM)

SCHOOL OF BUSINESS AND ECONOMICS
UNIVERSITI MALAYSIA SABAH
2007

UNIVERSITI MALAYSIA SABAH

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IJAZAH: **MASTER IN HUMAN CAPITAL MANAGEMENT (MHCM)**

SESI PENGAJIAN: 2004 – 2007

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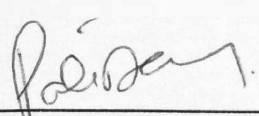
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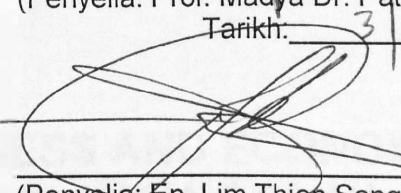4. TIDAK TERHAD.
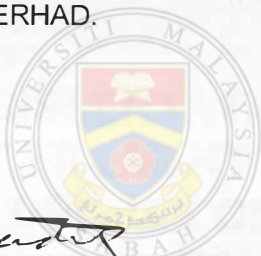
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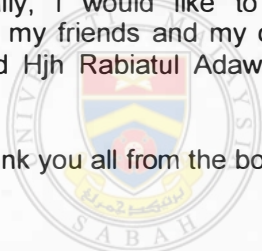**PS04-002(K)-115**
JULY 2007

ACKNOWLEDGEMENT

ABSTRACT

Information Technology and Information System have tremendously transformed every aspect of the industry. HRMIS (one of five pilot applications in Malaysia E-Government) is a single interface for government employees to perform HRM functions effectively and efficiently in an integrated environment. HRMIS is only a tool and the success of its implementation depends highly on its users. This study attempted to determine the factors that influence HRMIS usage among the staffs of Sabah State Library (SSL). The objectives of this study were to study the level of usage among the staffs of SSL, the impact of users' attitude and computing skill on the system usage. This study also tries to investigate the moderating effect of gender and age on independent and dependent variables relationship. This study has utilized the well-established model D&M IS Success and TAM as a theoretical framework. The findings from the study show a strong relationship between independent variables (HRMIS Quality, perceived usefulness, perceived ease of use and computing skills) and dependent variable (System usage-intention to use). On contrary, there were no moderating effect caused by gender and age on the relationship.

ABSTRAK

HRMIS DAN FAKTOR-FAKTOR YANG MEMPENGARUHI PENGGUNAANYA DIKALANGAN STAF PERPUSTAKAAN NEGERI SABAH

Teknologi Maklumat dan System Maklumat telah mengubah setiap aspek industri. HRMIS adalah salah satu aplikasi utama dalam E-Government Malaysia yang berfungsi sebagai perantara kepada kakitangan kerajan untuk melaksanakan fungsi pengurusan sumber manusia dengan lebih effisyen dan effektif. HRMIS hanya merupakan alat dan kejayaan pengimplementasian sesebuah projek terletak kepada pengguna. Kajian ini bertujuan untuk mengenalpasti faktor-faktor yang mempengaruhi penggunaan HRMIS dikalangan staf Perpustakaan Negeri Sabah. Objektif kajian ini adalah untuk mengenalpasti tahap penggunaan, sikap pengguna dan skil berkenaan komputer keatas penggunaan HRMIS. Kajian juga ingin melihat sama ada jantina dan umur mempunyai pengaruh keatas hubungan tersebut. Kajian ini telah menggunapakai model terkenal D&M IS Success dan TAM sebagai rangkakerja teori. Hasil ujikaji mendapati terdapat hubungkait antara pembolehubah kualiti HRMIS, andaian kepentingan, andaian mudah guna dan skil berkenaan komputer dengan penggunaan sistem - keinginan untuk mengguna. Dalam masa yang sama, didapati tiada hubungkait antara jantina dan umur dengan pembolehubah bebas dan pembolehubah bergantung tersebut.

ABBREVIATIONS

HR	Human Resource
HRMIS/HRIS	Human Resource Management Information System/ Human Resource Information System
IT	Information Technology
IS	Information System
MSC	Multimedia Super Corridor
SISPEN	Sistem Pengurusan Maklumat Personnel Jabatan
SSL	Sabah State Library
SPSS	Statistical Package for the Social Science
TAM	Technology Acceptance Model

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CHAPTER 1

INTRODUCTION

1.1 Overview

Information Technology (IT) has radically transformed every aspect of industries and affected almost every factory and office worker. The power dynamics and communication patterns associated with Taylor (1911) production model at the organizational level have been superseded by more decentralized structures with empowered employees (Barry, 1989).

Information systems (IS) have evolved from an administrative to a strategic orientation. They are now commonly used not only to enhance productivity, but also to improve effectiveness and create a competitive edge (Martisons, 1995). Increasing numbers of computer-based IS are being applied to cross-functional and even inter-organizational activities, especially as core business processes are fundamentally redesigned (Hammer, 1990).

Investments in IT/IS are significant. According to Brynjolfsson and Hitt (1998) and Strassmann (1997), the global investment in 1996 was US$1 trillion, $250 billion of which was spent in the USA alone, whereas in the UK, the estimated figure reached $35 billion (Willcocks and Lester, 1996).

Malaysia like other countries is not left behind in IT/IS development. In 1990, the Government of Malaysia has formulated Vision 2020. It is a 30-year plan to "push" Malaysia to achieve a level at par with industrial nations in terms of economic performance and technological capability. The transformation from a production-based to a knowledge-driven economy is part of a wider plan to achieve the objective

of the nation's Vision 2020. (Mustapha and Abdullah, 2000). Malaysia commitment to shift to the K-economy is evidence with the realization of the Multimedia Super Corridor (MSC). MSC is a gift from Malaysia to the world. This 50x15 km wide corridor stretches from the centre of Kuala Lumpur to a newly established city Cyberjaya, situated approximately 40 km south of Kuala Lumpur, is designed to incubate high technology companies. When the MSC was first announced in 1995, it was estimated that the government would spend RM28 billion (approximately USD7.4 billion) to develop the infrastructure and facilities required to attract international technology companies (Mohamed et. al., 1999). It aims at revolutionizing IT and multimedia industries by creating a massive corridor with a conducive environment for local and international companies wanting to create, distribute and employ IT and multimedia products and services (Abdul Manan and Othman, 1999).

Seven primary areas for multimedia applications have been identified to spearhead the development of the MSC and gave shape to its environment (Multimedia Super Corridor). These Seven Flagship Applications are:

1. Electronic Government (e-Government)
2. Multi-Purpose Card
3. Smart Schools
4. Telemedicine
5. R & D Cluster
6. World-wide Manufacturing Webs
7. Borderless Marketing

1.1.1 Electronic Government (e-Government)

To lead the country into the Information Age, the Government of Malaysia has launched e-Government as one of MSC Flagship Applications with the aspiration to employ multimedia technologies to re-invent the way government operates. Electronic Government will improve both how government operates internally as well

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as how it delivers services to the people of Malaysia. It seeks to improve the convenience, accessibility, and quality of interactions with citizens and businesses; simultaneously, it will improve information flows and processes within government to improve the speed and quality of policy development, coordination, and enforcement (Multimedia Super Corridor).

The vision of Electronic Government focuses on effectively and efficiently delivering services from the people of government to the people of Malaysia, enabling government to become more responsive to the needs of its citizens. There are two objectives which Electronic Government must achieve (Multimedia Super Corridor):

1. Reinvent Government

    i.   Improve services to citizens and businesses

        o   Better access for Malaysians

            ■ One stop

            ■ Multi-channel

        o Higher quality services

            ■ More reliable faster turn-around

            ■ Increased transparency

    ii.   Improve effectiveness and efficiency of government

        o Better processes

            ■ Improve information flow

            ■ Clearer accountability

        o Better systems

            ■ Analytical tools

            ■ Management tools

            ■ Decision support tools

        o More empowered people

2. Catalyse MSC

    ii.   Attract world class skills and experience from international businesses.

iii.   Create opportunities for innovation in a working government

iv.   Create a forum for collaboration

- o Between international and local businesses
- o Between businesses and government

v.   Build bridges to other initiatives

- o Across SE Asia
- o Around the globe

The pilot applications for Electronic Government are:

1. Electronic Delivery of Driver & Vehicle Registration Licensing and Summons Services, Utility Bill Payments and Ministry of Health Online Information.

2. Electronic Procurement.

3. Prime Minister's Office-Generic Office Environment.

4. Human Resource Management Information System

5. Project Monitoring System.

1.1.1.1 Human Resource Management Information System

Prime Minister Dato Seri Abdullah Haji Ahmad Badawi in his keynote address during OIC Human Capital Management Conference held in Kota Kinabalu from 22nd -24th November 2006 said that "The rapid evolution of information and communication technologies (ICT) calls for new business strategies that would allow full utilization of human capital and thus would help ensuring that companies are able to weather a fierce competition in the global marketplace. The advancement of information technology induces companies to switch from being labour-intensive to becoming knowledge-intensive". He concluded that "Malaysia's transformation into knowledge-based economy cannot be successful without a comprehensive reappraisal of the

practices and strategies in the field of human capital management". Therefore, HR is involved by identifying how it can aid in increasing productivity, help deal effectively with competition, or enhance innovativeness in the organizations. This kind of rethinking is known as strategic thinking (Mathis & Jackson, 2004).

Strategic HR management refers to organizational use of employees to gain or keep a competitive advantage against competitors. Recognition has been growing that human resources contribute to a competitive advantage for organizations. Human resources, in some ways, become a core competency of an organization. A core competency, according to Mathis & Jackson (2004), is a unique capability that creates high value and differentiates the organization from its competition. An organization, therefore, must analyze and identify the need for and availability of human resources so that the organization can meet its objectives. This process is called human resource (HR) planning. HR planning process begins with considering the organizational objectives and strategies followed by assessing and forecasting HR needs and labour supply from the external and internal sources.

The knowledge-based economy and the changes in technology, as well as workplace practices that come along with it, make labour market information even more important not only for policy makers, but also for individuals making career choices, employers seeking workers, as well as education and training providers planning courses and curriculum to meet demand. Information, thus, acts as the lubrication for the efficient functioning of the workers in the labour market (Fong, 2002).

The key to assess internal human resources is to have solid information accessibility. Information on organization's intellectual assets can be accessed effectively and efficiently through a human resources management information system (HRMIS). Hence, to increase the efficiency and effectiveness of public service human capital management, the Government has set up HRMIS under the e-Government Flagship project.

Human Resource Management Information System (HRMIS) is a single interface for government employees to perform HRM functions effectively and efficiently in an integrated environment. Being the first government in the world to venture HRMIS project that covers so many agencies, HRMIS aims to digitize all available data and information on government personnel to enable the various agencies and departments to respond quicker to the changing political, economic and social environment (Samsudin Osman, 2004). Tan Sri Samsudin Osman added, "The most interesting, most massive and most extensive project is the Human Resource Information System (HRMIS)".

1.2 Problem Statement

An increased emphasis on the knowledge-based economy has resulted in many organizations realizing that their people and information resources are critical to survival and success. Thus HRMIS is vital to gain a competitive advantage because it brings efficiency improvements, cost savings and better decision making supported by accurate information. But the success of IS/IT depend on the people to realize that HRMIS is an important tool that can be manipulated to improve organization efficiency and effectiveness. In other words, HRMIS is only a tool and the success of its implementation depends highly on its users. These users also play an important role to ensure that the system meets their needs as well as the organization's goals. Hence, determining why people accept or reject new technology is one of the main focuses of IT implementation.

The issues that instigate this study are:

1. To what extend the users' used the HRMIS?

2. What are the factors that influence users' usage of the HRMIS?

3. Are there any relationships between demographic factors and HRMIS usage?

1.3 Objectives of the Study

The successful implementation of information technology in organization is the primary concern in information system (IS) discipline. An IS may thus be considered successful if it meets criteria such as fulfilling user needs and organization objectives/goals. In other words, the prime purpose of introducing IS into an organization is to improve not only the individual's performance but the overall organization efficiency and effectiveness. The expected gain in terms of organizational goals through IS implementation and adoption are concerned with the success of the system (Bokhari, 2005).

Delon and Mclean (1992) after reviewing 180 studies, described IS usage as one of IS success measures and suggested that IS usage as a key dependent variable. Therefore the objectives of this study are:

1. To investigate HRMIS usage in Sabah State Library.
2. To study users' attitude and computing skills on HRMIS usage.
3. To study the demographic factors that influences the system usage.

1.4 Scope of the Study

The study was conducted in Sabah State Library (SSL), a government department under the Ministry of Community Development and Consumer Affairs. SSL has a huge network of libraries, the biggest in Malaysian Public Library. It covers 21 districts of Sabah. This representation makes SSL an interesting sample to study in terms of its capability to execute HRMIS for all employees regardless of their location.

The staffs of SSL are stationed in the Headquarters, a City Library, 3 Regional Libraries, 18 branches, 13 mobile libraries, 3 cybermobiles (Desa@Net) and 52 Village/Cyber libraries (SSL). The staff strength is made up of 4 different schemes of services, namely Social (S), Administrative (N), Information Technology (F) and Finance (W). This study is limited to staffs of Sabah State Library within the Social

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Service scheme only. The estimated population size is 229 employees, comprising of professional and management group and support groups.

1.5 Significance of the Study

The impact of information technology (IT) on human resources (HR) function has been both pervasive and profound (Snell, et.al, 1995). IT can provide a data and communications platform that helps HR link and leverage the firm's human capital to achieve competitive advantage (cf. Scott Morton, 1991). There are significant numbers of organizations investing in HRMIS in order to access information on their intellectual assets in an efficient and effective manner. Ball's (2001) survey in 1998 showed that 60 percent of Fortune 500 companies use the HRIS to support daily human resource (HRM) operations.

The measurement of IS success has achieved prime importance among researchers since the investment in IS/IT are significant. For HRMIS project alone, for instance, the government of Malaysia has to spend about RM99.89 million (Abdul Wahab, 1999). Measures of success include assessment of satisfaction as reported by personnel, and the evaluation of the capabilities of the constructed system, described in various terms such as system performance, effectiveness, quality, use and users' satisfaction (Bokhari, 2005).

Since this study tries to investigate HRMIS and the factors that influence HRMIS usage in Sabah State Library, it is hoped that the findings from this study will help this organization and hopefully other organizations as well to better improve the effectiveness of their Human Resource Management Information System and understand the factors that influence its usage so that this system will be utilized to the fullest.

1.6 Key Variables

The key variables used in this study have specific meaning and such definition in general context as well as in the context of this research are outline below:

1.6.1 Information Technology (IT)

Information technology (IT) encompasses a wide range of tools including hardware (from mainframes to microcomputers), software (from word-processing programs to expert systems), networks, and workstations (Scott Morton, 1991).

1.6.2 Information System (IS)

An information system (IS) links together data inputs, processes and information output in a coherent, structured way (Ward, 1995). Information System (IS) is made up of four elements (Cashmore and Lyall, 1991):-

1. Collection of data
2. Storage of data
3. Manipulation of data
4. Presentation of information

1.6.3 Human Resource Management Information System (HRMIS)

Some refer to this type of system as Human Resource Information System (HRIS), a personnel data system, an employee information system, or a staff data system. These terms refer to the application of computers not only to employee related record keeping and reporting but also management decision making (Ceriello and Freeman, 1991).

1.6.4 System usage

System usage may be defined as "either the amount of effort expended interacting with an information system or, less frequently, as the number of reports or other information products generated by the information system per unit time (Trice and Treacy, 1998, p.33).

1.6.5 Users' attitude towards the system

Users' attitude towards the system refers to user acceptance of technology and is determined by two factors:

i. Perceived usefulness.

ii. Perceived ease of use.

1.6.6 Computing Skills.

This refers to users' familiarity with computer; hands-on experience with the system, procedural information and coaching provided by experts to user (Ndubisi and Jantan, 2003).

1.6.7 Demographic Factors

Demographic factors refer to individual factors such as gender and age.