CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

Today, most countries of the world are undergoing another major transformation i.e. economy based on the creation, manipulation and distribution of information (Seneviratne, 1999). In this information era, which Toffler (1995, cited from Awadz Mohamad, 1999) calls it as the 'Third Wave'. ICT has, to some extent, changed the organizations, both public and private sector, in terms of its internal structures and processes as well as the external relations (Li, 1997). ICT is also believed to be a factor for the organization to do work in new and different way (Yazici, 2002) as to response to the new demand of productivity and efficiency.

"The country realized that the present development strategy focused on land, labor and capital will not help the country achieve the goal of Vision 2020. Thus, Malaysia decided to make the Information and Communication Technologies (ICT) the dynamic for growth" (Dr.Mahathir, 1998). That is why Malaysia has to take advantage of the ICT explosion and apply ICT to its development programs. One of the government basic roles is the provision of economic infrastructure necessary for the satisfactory operation of the knowledge-based market (Anderson, 1989, in Hughes 1994). Therefore, the launching of the Multimedia Super Corridor (MSC) in 1996 was seen as the strategy for development program. In Malaysia, the Malaysian Administrative Modernization and Management Planning Unit (MAMPU) have taken the lead to drive the initiatives for the public sector.

1.1 PROBLEM STATEMENT

The purpose of ICT application in public sector is to innovate government administration structure, as it needs mindset shift among the employees in public service itself. "There has to be a paradigm shift in the mindset. Capability is now the benchmark, as opposed to seniority to enhance one's economic and social cohesion". (Datuk Dr.Fong Chan Onn, Human Resources Minister, Star, 2001). "However, it is believed that the service is not being used as optimized by the society. The entrepreneur or public view the usage of Internet in Malaysia for the time being is reported only 5 % from the population. Hence, the objective of public sector to provide simpler tender transaction on-line to entrepreneur society or provider will be useless. Finally, those who are IT illiterate or less knowledge on ICT will lead to accept government service manually" (Y.Bhg.Tan Sri Abdul Halim Ali, State Chief Secretary, Star, 2001).

Besides, the lack of sufficiently skilled foreign workers and productivity issues continue to be major causes. "Malaysian workers, in their efforts to face competition from globalization, should equip themselves with Information Communication Technology (ICT) skills. The demand for workers would also see a change - with the need for knowledge-based workers. K-Workers on the forefront of the globalization challenge. This could result in shrinking job opportunities, rise in unemployment and retrenchments edging upwards. The biggest challenge in the short and mid-term will be for employees to prepare themselves for the shift from production to knowledge economy. This shift to K-economy would require more skilled employees who are computer literate while

labour needed for administrative and processing work could decline significantly". (Datuk Dr.Fong Chan Onn, Human Resources Minister, The Star, 4 September 2002).

In addition, the government is unhappy over the lukewarm interest shown to learning information and communication technology (ICT). Prime Minister, Datuk Seri Dr. Mahathir Mohamad said he was disheartened that not many people were making the effort to learn to use the computer. "Malaysians should not wait to have their own computers before learning how to master them and the information technology. In facing challenges of globalisation, K-economy and information and communication technology, learning about computers and the IT world should not be delayed. Do we need to have our own car before we start learning to drive? Of course the answer is no. The knowledge on computers and IT gained today will prove useful later when you have to work with computers and the Internet". Adding to the statement above, the prime minister was not happy with the progress made in promoting the use of computers and IT. "Too many people are just not making any effort to learn how to use computers. We have lots of computer; you cannot wait until you own one before learning. It has to be done now; otherwise, we will be left behind." (Dr. Mahathir, Star, 2001).

Furthermore, according to Professor Dr. Mohd Zulkifli bin Tan Sri Mohd. Ghazali (The Star, 2002), "With each ICT development, a phenomenon called the 'digital divide' grows wider. If the disparity in wealth divides the rich and the poor, and the disparity in education divides the literate and non-literate, then the digital divide, refers to the disparity between those who have use of and access to ICT versus those who do not. Digital divides exist both within countries and regions and between countries. It

transcends locality, races, gender, age, language, culture and religion. The issue of the digital divide is more than direct access to technology, it is also regarding the disparity between how different nations are using ICT as a tool for social and economic development. Digital divide is also about knowledge divide".

In addition, "While the world is in the throes of globalization and information explosion and heralding the coming of the K-based economy, the preparedness of the Public Service seems to be inadequate. The Public Service seems to be still in the industrial age and there needs to be a paradigm shift. Malaysia has the vision for a K-based economy but the implementation aspects leave much to be desired". (Tan Sri Abdul Halim Ali, Star, 2002).

This is a challenge for today and the future that need to be solved. That is why, the research purpose is to study how far the use and effectiveness of e-Government in promoting ICT, the practice and knowledge of employees in Public Service Department (JPA) and also competency of ICT application in public sector.

1.2 RESEARCH OBJECTIVES

1) To determine the factors and barriers which influence the adoption and usage of e-Government in PSD.

2) To analyze the effectiveness on the implementation of e-Government in PSD.

3) To analyze the problems which are currently experienced by the organization and to discuss ways of resolving these problems and enhancing the use of ICT in PSD.

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1.3 RESEARCH IMPORTANCE

Among the factors that will influence or affect the outcome of the ICT adoption in public sector are human capital, structure, strategy and management systems (Spanos et. al., 2002). The function of ICT in technological change, human capital and economic growth is important, especially related to economy based on knowledge (K-Economy). ICT is considered as complement to k-economy. According to Prime Minister (2001), an effort towards upgrading ICT skills in education, industry, management and research should be given priority. He added, "ICT literate will impact and reduced wealth, knowledge and information divide between the societies in Malaysia with society in developed countries".

The importance of the research is to conceptualized the role of the e-Government in promoting ICT, to contribute for a more structured and efficient public policy in the future for the public sectors specifically, and the government generally, to explain issues related to ICT in public sectors, and therefore the organization will realize and find ways of improvement to minimize the problem, to encourage other researchers to study the research since this is a new issue and to develop the importance of ICT in Malaysia as a whole.

1.4 RESEARCH METHODOLOGY

"Methodology is properly regarded as being a branch of the discipline of logic and does not give us detailed instructions as how to perform our analysis, or which statistical technique to use. Rather, methodology supplies us with the logical rules that will guide our analysis. We must have criteria that will separate valuable theorems from those of slight worth. Valuable theorems are those that are (1) valid, (2) operational, (3) broad, and (4) significant." (*Industrial Organisation and Prices*, James V. Koch, 1974, Prentice-Hall, Inc.)

1.4.1 DATA COLLECTION

Data were gathered through two sources:

1. Primary Data which is through survey that involves questionnaire, and interview method.

2. Secondary Data is through research in libraries such as books, articles in newspaper, journal and internet.

As the research main organization is PSD, therefore questionnaire method is more appropriate towards PSD management and to identify how far its role in promoting ICT knowledge in Malaysia. The researcher had been using 'batch sample technique' with the focus on PSD as research sample. This technique is simpler with the simple random sample. It involves low cost and saves time.

In this organization, the researcher had analyzed and evaluates how far the content and implementation of ICT programs in the organization donate to the development ICT knowledge especially in public sector. In order to answer the question of how effectiveness the program in MAMPU, the researcher had distributed questionnaire to the staffs in PSD; to identify their perception on the effectiveness of the ICT programs offered. Besides, interview method had been applied towards the staff in PSD and other management parties involved. The data had been analyzed in quantitative and also qualitative to test hypothesis. The quantitative data had been analyzed using SPSS computer technique.

1.4.2 THE SAMPLE

A sample of 150 questionnaires which were pretested earlier was distributed randomly to the employees in PSD. It covers three divisions, namely; Human Resource, HRMIS project and Information Technology.

From a total 150 questionnaire distributed, 93 responses were completed (a response rate of 62%). The responses were obtained from employees in Human Resource, HRMIS and Information Technology division of PSD.

In addition, personal interview with the Chief Assistant Director, Development System 1, Information Technology Division, PSD, was also carried out to obtain more detailed information.

1.4.3 RESEARCH DESIGN

Questionnaire is applied for the primary purpose of describing factors, barriers, effectiveness and problems arise. The questionnaire is designed by categorizing them into two types, open-ended and close-ended questions. There are three open-ended questions and sixty close-ended questions.

The questionnaire is also divided into five sections. The first section contains questions about demographic profile that include ethnic, gender and formal level of education. The second section asks about factors that influenced the use of e-Government in PSD. Questions in the third section are on barriers to adopt e-Government in PSD. The fourth section contains questions about effectiveness after implementation of e-Government in

PSD and the fifth section inquires about problems that arise in post implementation of e-Government in PSD.

For each question respondents were asked to evaluate each statement on a scale of 1 to 5. The statements were a 5-point likert scale ranging from 1 (strongly disagree), 2 (disagree), 3 (moderately agree), 4 (agree) and 5 (strongly agree). The questionnaire contains sixty questions in total.

The data was analyzed using SPSS.

1.5 RESEARCH LIMITATION

Researcher had been facing problem of time constraint and confronting with financial problem. As the research was using survey method, therefore the problem of getting cooperation from the party involved did exist. The other manual reference such as books.

1.6 ORGANIZATION OF THE RESEARCH

This research will be divided into five chapters. Chapter one introduces the problem statement, research objectives, research importance and the limitation of the study. Also discussed was research methodology which includes the research sample, data collection methods and the data analysis techniques.

Chapter two provides review of literatures in relations to e-Government and ICT – characteristics and services offered; and how e-Government can be used for the public

service as a whole. In addition, the implementation of e-Government for public service was discussed.

Chapter three discusses the background of the organization that is being used as a sample, which is Public Service Department (PSD) and also MAMPU as a lead agency for e-Government project.

Chapter four provides analysis of the research results which includes the characteristics of the respondents, the results of the factors, barriers, effectiveness and problems to the use of e-Government and also a summary of the research findings and conclusions.

Chapter five is on the overall conclusion and recommendation for future research was discussed.