

Chapter 1

Introduction

1.1 Background

As the world moves closer towards the information and digital age, the core of global economic activities is shifting towards one that is based on information and knowledge. Towards achieving its Vision 2020 goals, Malaysia will be transformed from being a mere manufacturing to an information based economy. With this in mind, the Multimedia Super Corridor (MSC) is created.

The Government of Malaysia has taken some steps towards this information age era. For example, in the 1998's budget, the government has announced some tax incentives to be given for computer purchases. These incentives were given to promote wider computer usage. Prior to that, in the government's 1997 budget plan, more emphasis was placed on the productivity-driven growth which includes technology development, that is inseparable from information system.

Today, information system is crucial and inseparable in our daily life. It is the most valuable resource in any organization, especially those in the manufacturing industry. Recently, there has been a dramatic increase in the use of computer-based information system in most organizations. Managers and professionals who were previously ignorant, now have started to learn to use computer in order to enhance their jobs efficiently.

There are various specific categories of systems serving each organizational level and each has their respective values to the organization, so as in manufacturing industries, information system is mostly used in strategic-level manufacturing systems, manufacturing and production systems; Knowledge manufacturing systems and operational manufacturing systems. Systems at each level, in turn, are specialized to serve each of the major functional areas.

As information technology is becoming more and more important in our daily life and an inseparable component in the organizations, the question as to whether the organization should invest in information technology has become more crucial and critical. As such, it is inevitable that the information technology be evaluated for these reasons:

1. Investment in information technology is costly. If senior management is to accept and commit itself to the continuous increase in the use of information technology, it must be convinced that an economic case can be made from the investment.
2. Information technology is only one of the many alternative claims on the enterprise's resources. Management has to be able to compare the returns of investments into a great variety of different ventures in order to achieve the right mix of investment.
3. Evaluation provides the benchmarks for what is to be achieved in economic, operational or organizational terms from the investment in information technology. Subsequently the benchmarks can be used to provide a measure of the success of the actual implementation of the information technology projects.
4. A formal evaluation process can avoid managers' judgments which are based by their own perceptions.

Based on the reasons discussed above, it is therefore deemed necessary to evaluate the systems. There are many ways to evaluate the information system success. For example, using the return on investment(ROI), return on management(ROM), and so on. However, this research will concentrate on the user behavioral study, that is using the user satisfaction as a measure of the information system's success. to analyze the success of the information system, the existing systems provided to the end-users will be evaluated. The end-user's behavioral study will aid the organization's decision in its future information system investment.

1.2 Definition

Information system can be defined as a set of interrelated components that collect (or retrieve), process, store, and distribute information to support decision making and control in an organization. It may also help managers and workers analyze problems, visualize complex subjects, and create new products. For the purpose of this research, information system is referred to as formal information systems which rely on computer technology.

A successful information system is one which achieve the expectations of its users. This might include the user's opinion on the accuracy, timeliness, and relevance of information; on the quality of service; and perhaps on the schedule of operations.

A user is defined as an individual who uses information system or has managerial responsibility for its use, ownership or financing. The expectations of users are expressed by the mean of the systems attributes.

For this study, the success of the information system is not defined, as it is based on the respondents perception to the systems provided.

1.3 Purpose of the research

There has been a lot of user satisfaction and effect to the information system success studies conducted in foreign countries, however, such study has yet to be carried out in Malaysia. This study examines the idea that there are service attributes of IS which will enable information system departments and their products to be perceived by their users as successful.

The study has developed and tested a modified instrument for measuring the information system effectiveness and to evaluate it's reliability and construct validity. Besides that, those attributes that were most closely linked to overall system effectiveness in the manufacturing firms were also identified.

The performance measurement can be used to detect potential or actual problem that occurred in the organization. Besides that, it can also determine the job behavior of the installation and the workload characteristics, which is useful to improve the system performance.

As mentioned before, an investment in information technology is costly. This study will also enable an organization to know the user's perceived performance, identify the weakness of the system and take appropriate actions to rectify the system and for future information system strategy planning. The result will also help the organization and policy makers to make the necessary adjustment regarding their information technology investment.

1.4 Scope and Organization of the Research

This study concentrated on the manufacturing sector, whereby the automation in manufacturing has increased the information system management and man/machine interface. According to a survey conducted by the Federation of Malaysian Manufacturers(FMM) in 1997, the local manufacturing sectors are

beginning to show a higher level of dependency and usage of information technology for the past several years.(Computimes, 21st. July, 1997).

The study's scope has been narrowed down to the electrical and electronic manufacturing sectors only. Since these two sectors have been heavily involved in information technology as compared to other sectors in the manufacturing industry.

The area of this study is limited to the Petaling Jaya and Shah Alam areas whereby these two areas are most convenient and also cost effective to the researcher.

The structure of this research is as follows. Chapter 1, the introduction, gives a general overview of the nature of the study; discusses on the purpose of the study together with the scope and organization of the research. Chapter 2 discusses the related literature review. In this chapter, the development and trend of user satisfaction in the foreign countries will be discussed. Chapter 3 describes the methodology used in conducting this research. This study uses the questionnaires survey method. Chapter 4 analyzes the data, discusses on the findings of this research and also the empirical hypothesis. Lastly, Chapter 5 gives a summary of the findings and the conclusion.

1.5 Limitations of the Study

There are some limitations to this research.

Firstly, the samples taken for this survey is limited to Shah Alam and Petaling Jaya areas only. This is due to the constraint of time, cost and manpower. As such, the results cannot be representative for the whole population of the manufacturing industry in Malaysia.

Another limitation of this study is that, the concentration is only on the electrical and electronic manufacturing firms. Therefore, the results of this study cannot be generalized to the whole manufacturing sector.

However, the results can still be considered to be representative since they are found to be similar to the foreign studies conducted in financial sector (Miller & Doyle, 1987) and in various sectors(Baroudi & Orlikowski,1988).