CHAPTER 1: INTRODUCTION

This study investigates the success factors and challenges in the implementation of e-procurement, which is an initiative that promises to deliver significant savings to firms. E-procurement refers to the purchase of goods and services for organizations (Turban et al., 2006). However, e-procurement systems, applications designed to allow organizations to order and acquire the necessary goods and services through the Internet, are not all created equal. The term itself is quite broad and actually includes several varieties of applications. Part of a successful implementation involves choosing the appropriate application.

1.2 Category of E-procurement Systems

In general, there are three main categories of e-procurement systems. One type focuses on improving the transactions and the decision-making capabilities of the company. Businesses may deal with hundreds of transactions weekly, but these applications simplify the process and help foster stronger relationships between buyers and suppliers.

The second category of e-procurement system involves managing assets. Systems in this category provide inventory management, maintenance scheduling, in-house product availability, as well as other similar services. These applications are useful for businesses that need to keep a close eye on the quality of their direct materials in stock. Finally, the last category includes systems designed to optimize a company's production operations. Many of these

applications deal with the entire production cycle, including the procurement of materials when the inventory runs low, the management of supplier contracts, and the production scheduling. Nowadays, many of the fortune 500 corporations have already implemented electronic procurement (e-procurement) systems to manage their purchasing activity. E-Procurement is more than just a system for making purchases online. A properly implemented system can connect companies and their business processes directly with suppliers while managing all the interactions between them. This includes management of correspondence, bids, questions and answers, previous pricing and multiple emails sent to multiple participants.

A good e-procurement system helps a firm organize its interactions with its most crucial suppliers. It provides those who use it with a set of built-in monitoring tools to help control costs and assure maximum supplier performance. It provides an organized way to keep an open line of communication with potential suppliers during a business process. The system allows managers to confirm pricing, and leverage previous agreements to assure each new price quote is more competitive than the last.

For several years, procurement activity has been identified as an area that has great potential for cashable savings and has significant benefits to the company. In order to achieve continuous savings and add value to the organization, e-procurement has an important role in developing, planning and allocating the

company's resources to maximize their profile from savings and reducing waste of resources. With the implementation of an enterprise resources planning (ERP) or material resources planning (MRP) system in the electronic data interchange (EDI), connections with suppliers can be established. The buyers and sellers can develop close partnerships through the automation of delivery schedules by linking the company's material management system with the suppliers system. This will create the strength among the companies to move together in facing the rapid changes in the business environment.

E-procurement covers and supports all the activity within an organization and has an important domino impact on the whole supply chain in the company. The system becomes a linkage within the organization and allows relevant authorized personnel to share information. There are six main forms of e-procurement:

- **Web-based ERP (Electronic Resource Planning)**: Creating and approving purchase requisitions, placing purchase orders and receiving goods and services by using a software system based on Internet technology.
- **e-MRO (Maintenance, Repair and Operating)**: The same as web-based ERP except that the goods and services ordered are non-product related MRO supplies.
- **e-sourcing**: Identifying new suppliers for a specific category of purchasing requirements using Internet technology.

- **e-tendering**: Sending requests for information and prices to suppliers and receiving the responses of suppliers using Internet technology.

- **e-reverse auctioning**: Refers to using Internet technology to buy goods and services from a number of known or unknown suppliers.

- **e-informing**: The gathering and distribution of purchasing information, both from and to internal and external parties, using Internet technology.

This paper intends to identify the main success factors and challenges that influence companies applying e-procurement and examine the correlation between success factors, challenges and implementation of e-procurement systems.

1.2 Benefits of e-Procurement System

The potential of e-procurement has already been proven in a number of studies (Aberdeen Group, 2001; Eyholzer and Hunziker, 2000; Arthur Andersen Business Consulting, 2001). By deploying an e-Procurement system, corporations can better manage spending by creating significant process savings and lowering the absolute cost of the goods and services by ensuring adherence to strategic procurement initiatives. In order to implement and firmly establish such a solution successfully in the enterprise, it is essential that the e-Procurement system offers an easy interface, allowing all participants in the supply chain including suppliers, manufacturers and buyers, to participate in the system. E-Procurement helps with the decision-making process by keeping

relevant information neatly organized and time-stamped. Most are template-driven, which makes all transactions standardized and traceable. Keeping track of all bids means leveraging your knowledge to obtain better pricing. Companies can focus on their most lucrative trading partners and contracts.

Well-managed e-procurement helps reduce inventory levels. Knowing product numbers, bid prices and contact points can help businesses close a deal while other suppliers are struggling to gather their relevant data. E-Procurement systems that allow multiple access levels and permissions help managers organize administrative users by roles, groups, or tasks. Procurement managers do not need to be as highly trained or paid because such systems are standardized and easy to learn.

Use of an e-procurement system frees supply management and other personnel and allows them to focus on creating value for the enterprise. Three(s) major benefits are:

➢ **Cost Reduction from Procurement Activity**

The e-procurement not only reduces the cost of transactions, it also improves process efficiency and can reduce administrative and other costs. Traditional methods of procurement involving people use manual ways to source, order and fax the manual purchase order to suppliers to confirm the order. Whereas, the e-procurement system reduces or eliminates manual (phone and fax) communication, including invoices and their associated costs.

> ➤ **Increase Companies Productivity**

The companies that implement e-procurement report that procurement, accounting, and other corporate functions are more productive and efficient now than with traditional buying methods. The e-procurement systems are able to provide a standardized approach to rolling out efficient processes not only for procurement but for all departments involved in transaction processing and financial record-keeping.

> ➤ **Increased Spend Under Management**

The ability of e-procurement users to bring more spends under the management of the procurement organization. Increasing spends under management helps ensure that the enterprise achieves maximum spending leverage in supply negotiations; it also ensures that consistent and thorough market diligence, costing measures, and compliance methods are applied to each spend category. In contrast, that portion of enterprise spend that is managed outside the procurement group typically results in less negotiation leverage and sub-optimal market analysis, producing higher pricing levels and management costs.

1.3 Problem Statement

E-procurement is the global trend for companies to compete with other international players. However, the system is complex when the companies are starting to grow and expand their business to a different industry. According to previous studies, e-procurement enables companies to decentralize their operational processes and centralize strategic procurement processes because

of the higher supply chain transparency provided by e-procurement systems (Aberdeen Group, 2001). Prior analysis shows that in the USA only 30 percent of the companies surveyed use e-procurement systems for requests for quotations, 25 percent for online auctions and 33 percent for e-markets (Wyld, 2004).

This study will focus on identifying the success factors that have a significant impact on the implementation of the e-procurement system and also understanding the challenges of the implementation as well.

1.4 Research Questions and Objectives of Study

Based on the scenario presented above, the research questions are developed around "What are the success factors and challenges influencing companies to implement e-procurement systems?" More specifically, the objectives of this research are as listed below:

1. To identify what factors influence companies to implement e-procurement systems;

2. To examine the challenges of implementing e-procurement systems that companies face; and

3. To draw conclusions and make suggestions concerning the implementation of e-procurement systems.

1.5 Purpose of Study

The purpose of this study is:

1. To understand the success factors influencing companies to implement e-procurement systems; and

2. To identify the challenges of implementing e-procurement systems.

1.6 Significance of Study

Previous studies that highlight the relationship between business strategy, environmental uncertainty and manufacturing flexibility suggest that organizations must continually measure performance and monitor the required flexibility to ensure that with the ever changing environmental uncertainty and strategies it is still required (Beach et al., 2000). Procurement usually represents one of the largest expense items in a firm's cost structure (Lennon, 2002; Attaran and Attaran, 2002). This study will help decision makers of companies to know what are the success factors that will influence companies to implement e-procurement systems and examine the potential challenges of the implementation stage. In addition, more importantly, provide more information concerning e-procurement systems to decision makers to increase the flexibility of the companies' to suit the uncertain business environment.

Furthermore, the study will show the solid data findings, which directly impact the firm's bottom line. The research will also provide a clear picture on the success

factors and challenges that companies face when implementing e-procurement systems.

1.7 Research Scope

This study was confined to companies who are registered suppliers with Genting Malaysia Berhad via the Ariba procurement system. The most cited reasons why select the companies as they have experience dealing with e-procurement system and the respondent have the significant impact on this study.

This study will cover the overview on manufacturing, trading and service industries and investigate what success factors attract them to implement e-procurement systems. In addition, this study examines the challenges that lead to the barriers to implementing e-procurement within an organization.

1.8 Organization of the Report

This report consists of six chapters and is organized as follows:

Chapter 1: The introduction chapter develops an interest in the subject of the study by starting with a discussion on the background information. The definition of the research problem and the purpose of the study are also presented in this chapter. In addition, the significance and scope of the study is also discussed. Finally, the disposition is presented to give the reader an overview of the thesis.

Chapter 2: The chapter explains the overview of the e-procurement system. The chapter starts with an overview of the e-procurement system. The definitions of various process of the e-procurement system are also presented here.

Chapter 3: This chapter reviews the literature related to this study. The chapter starts with an introduction about the success factors and challenges concerning the implementation of e-procurement systems. Finally, the relationship of the success factors and challenges in implementing e-procurement are discussed.

Chapter 4: This chapter outlines the methodology employed in the study. It begins with a review of the research framework. Then, it provides the hypotheses developed in this study. Thereafter, the design of the research instrument and measurements instruments will be discussed. Finally, the data analysis techniques used are also presented.

Chapter 5: This chapter presents the findings of the survey. It begins with a description of the general characteristics of the respondents. This is followed by an analysis of the shopping habits of the respondents. The results of the validity test and reliability test are also discussed. This is followed by a test on the hypotheses developed in the previous chapter.

Chapter 6: The final chapter will provide the conclusion for this research. First, an overview of the study will be provided. Thereafter, the summary of the major findings, marketing implications, limitations of the study and further suggestions are presented. Finally, the chapter ends with the concluding remarks of the study.

1.9 Conclusion

This chapter discusses the introduction of the study, which includes the research problem, purpose of the study, importance of the study, research scope and the thesis organization. Following this, Chapter 2 provides an overview of e-procurement systems.