CHAPTER ONE: INTRODUCTION

1.1 Research Motivations

With most organizations spending at least one third of their income on purchasing goods and services, procurement holds significant business value (Gebauer and Segev 1998). It is even possible that many organizations spending 50% to 60% of their revenue on purchasing goods and services (Kalakota and Robinson 1999). A close survey on supply chain management made at Forrester Research 2002 revealed that 62% of $1B+ the manufacturing firms surveyed deployed procurement and sourcing packaged applications and 35% of the firms could extend the applications to partners.

As for Taiwan, Taiwan E-Commerce Yearbook (2005) shows that supply chain management (SCM) system is one of the most popular applications. About 20% companies have deployed SCM corresponding systems and 60% companies are under developing and evaluating. 52.9% of respondents said that they could use the applications to conduct e-commerce with their trading partners.

Under the influence of globalization and electronic commence, more and more firms use electronic procurement (EP) to achieving purchasing efficiencies. In this study, EP is defined as the application of electronic commence in procurement. It involves the use of various forms of Internet technology, such as e-mail, EDI, and e-marketplace to automate and streamline the procurement process in business organizations (de Boer et al. 2002, Chan and Lee 2002). Nowadays, it has been established that EP is one of the most frequently performed business activities. Some research observed that the percentage of companies using an enterprise-wide procurement tool had increased from 31% in 2001 to 42% in 2003. Both direct and indirect materials bought online increased stably, while the increasing rate of the former is higher than the latter.[1] (Forrester Research 2003).

As a rule of thumb, the value of indirect orders (e.g. MROs) is generally much smaller than that of direct items. But the cost to process each is contrary to their value (Nam 1998, Turban et al. 2003). To reap quick returns from purchasing, the organization spares no effort on improving the effectiveness of high value and big volume purchases (Nam 1998). That is to say, direct purchasing has more strategic meaning for organizations. Though some studies argue that the direct procurement processes in major companies have gone through chief reengineering efforts in the

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[1] Direct materials bought online increased from 5.3% to 11.7% and indirect materials bought online increased from 6.6% to 11.0%.

past decade (Baron et al. 2000), as purchasing becomes more global, and with increasing technical complexity, international or global procurement in direct purchasing warrants a second look.

Over the past few years, a considerable number of studies have been made on the value and the impact of IT on the EP. Nevertheless, IT alone can't guarantee good performance. This drives us to the question whether an EP which focuses on direct procurement can deliver the promised benefits. A key concern of this question is alignment – applying IT in an appropriate and timely way and in harmony with business strategies, goals, and needs (Luftman and Brier 1999). Further, the external environment should also be considered into the issue of alignment, since the EP can be viewed as the IT-enabled inte-rorganizational processes which involve multiple trading partners with a wide range of communication and IT. While there can be no doubt that there needs to be a good fit between the EP and the requirements of the business environment, how to align is still open to question.

1.2 Research Objectives

This study attempts to better examine the business-IT alignment to build the positive relationship between EP and performance, and our focus will be on the EP in direct purchasing. Previous studies (Baron et al. 2000, de Boer et al. 2002, Mukhopadhyay and Kekre 2002, Subramaniam and Shaw 2002, Subramaniam and Shaw 2004) which based on IT view or process view along can't explain why an EP works on certain situations but fails in others. To make EP fulfill its promised benefits, we need to consider the impacting factors from both IT and process sides in the inter-organization context and the "fit" between IT and business environment. Given that indirect purchasing involves goods and services that are not part of finished product but support internal business activities and is driven by a recognition of need that is ad hoc with little predictability (Baron and et al. 2000, Subramaniam and Shaw 2002), we may say that business-IT alignment is more essential in the direct rather than indirect purchasing environment.

Thus, this paper seeks to contribute to the literature on direct procurement issue through (1) the development of a comprehensive architecture of business-IT fit model; and (2) the operationalization and test of the framework through primary field data obtained in industrial supply chains.

1.3 Research Questions

This research investigates the fit between business environment and IT that an EP has to achieve for better performance. The questions addressed can be summarized as follows:

(1) What impacting factors retard or encourage the successful implementation of corporate procurement systems?

(2) On the different environment conditions, which type of procurement system is more suitable for organizations in terms of the system performance?

1.4 Research Arrangement

The remainder of the research is organized as follows. Chapter 2 dedicates to literature review. Research model is described in chapter 3 when research analysis can be found in chapter 4. Chapter 5 is organized as further discussion and managerial implications. Finally, the concluding chapter describes a brief summary and the limitations of the study.