An Empirical Investigation of Third Party Logistics Providers in Thailand: Barriers, Motivation and Usage of Information Technologies

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ABSTRACT

Third Party Logistics (3PL) in Asia emerged as an important trend in logistical management and Thailand continues to develop in this service rapidly. While a great deal has been written about the dissemination of information technology (IT), few empirical investigations address the use of IT in relation to 3PLs in Thailand. In this article, the authors use an empirical study to investigate the profiles of 3PLs in Thailand and their company strategies for providing logistics service and use of IT. Survey results show that Thailand’s 3PL companies must expend more effort to strengthen basic IT and infrastructure to enhance competitiveness. IT capabilities in Thailand are increasing rapidly and its effective adoption has the potential to significantly enhance the competitiveness of small 3PLs. Still many barriers exist to the successful adoption of IT by these providers. Given the importance of such companies in supply chain management, these issues must be fully understood.

Keywords: E-Commerce, Information Technology, Small 3PLs, Thailand, Third Party Logistics (3PL)

INTRODUCTION

A Third Party Logistics (3PL) service represents more than a subcontracting or outsourcing service. Typically, subcontracting or outsourcing covers only one product (or a family of products) or one function that is produced by an outside vendor. In contrast, the functions performed by

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3PL providers cut across multiple logistics functions. These functions can encompass the entire logistics process or, more commonly, selected activities within that process.

Undoubtedly, the emergence of 3PL has become an important trend in logistical management during the 1990s. While estimates vary concerning the size of 3PL, it is evident that opportunities for 3PL services will continue to grow. The Asian logistics market is poised for robust expansion with its annual market growth rates projected at 15% in Asia (TLI, 2003). Such high growth rates in Asia indicate the high potential of supply chain development in this region, particularly in Thailand.

Thailand’s 3PL industry is developing rapidly and its service is gaining demand by shippers. Such development is strongly encouraged by the government in Thailand, which aims to develop the country into a premium integrated transport and logistics hub. Leading edge terminal facilities combined with logistics management competence are strengthening Thailand’s position as an international trading, automotive and business hub.

There are a number of factors driving the growth of 3PL. Declining margins and a tougher competitive environment, together with the recent positive attitude towards outsourcing and focusing on core activities, are regarded as the strongest drivers for the emergence of the 3PL industry. Many companies are outsourcing their logistics operations to reduce costs, improve products, shorten lead time and enhance competitiveness for their supply chain (Mentzer et al., 2001). Thus, companies need to link electronically with suppliers or logistics providers to forge sophisticated inter functional connections with key customers (Narasimhan & Jayaram, 1998).

Information Technology (IT) has become an important tool for implementing supply chain management (SCM). It provides many essential applications in improving performance in supply chain. Advances in IT have made it possible for companies to develop and maintain the flexibility to respond quickly to changing demands and conditions. Besides improving supply chain efficiency, IT including the application of hardware, software and networks, can enhance information flow and facilitate decision making in supply chain and logistics operations. The most dramatic and potentially powerful uses of IT involve networks spanning any boundaries that are capable of significantly enhancing the productivity, flexibility, and competitiveness of many companies (Jun, Cai, & Kim, 2008).

A recent issue of the McKinsey Quarterly (Kanakamedala, Ramsdell, & Srivatsan, 2003) reported that some companies making heavy investments in SCM information systems actually performed worse than companies who did not invest in the technology. This finding conflicts with the received wisdom that technological investment in SCM will increase efficiency. Also, it contradicts what managers have been repeatedly advised about the likelihood that IT will improve logistics operations. In order to successfully adopt IT, companies must first streamline supply chain their processes and fully understand how to leverage technology to improve its performance.

Although IT in large 3PLs has been widely investigated (Larson & Gammelgaard, 2001; van Hoek, 2000) there is still a shortage of research in the field of small 3PLs. Minimal empirical investigation has been undertaken to analyze the adoption of IT by these companies. An empirical investigation was warranted given the limited quantitative evidence available on the usage of IT by small 3PL companies in Thailand.

The purpose of this study is to investigate the status of IT in the Thailand logistics industry and identify IT usage trends in the region. It is undertaken to achieve three specific objectives:

1. To identify the profile of 3PL companies, their markets and services offered in Thailand
2. To identify the 3PL company strategies and the performance measurements used by them
3. To understand the types of IT used by 3PL, their motivations and barriers for deployment
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