Collaborative Commerce in Supply Chain Management: A study of Adoption Status in Malaysian Electrical and Electronic Industry

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Abstract: The principle objective of this study is to examine the adoption status of Collaborative Commerce (C-Commerce) in the Malaysian Electrical and Electronic (E and E) organizations. Original research using a self-administered questionnaire that was distributed to 400 Malaysian E and E organizations. Data were analyzed by employing descriptive statistics. In general, the adoption level of C-Commerce tools in the Malaysian E and E industry is still considered low with an average mean of 3.011. Based on the tools adopted, most organizations are utilizing C-Commerce for their supply chain execution. Among tools with lower adoption, they are mainly supply chain planning tools such as capacity planning tool and business strategy tool. This research enables organizations to have a better understanding of the current status of C-Commerce adoption level for SCM in the Malaysian E and E industry. This research have addressed previous lack of study in the adoption status of C-Commerce in the Malaysian E and E industry.

Key words: Collaborative commerce, Malaysia, electronic commerce, technology adoption, supply chain management, electrical and electronic industry

INTRODUCTION

Collaborative supply chain management has been studied widely in recent years due to its ability to improve the performance of supply chain such as reduced inventories, increase inventory turns, reduce cost and improvement in customer services (Chong and Ooi, 2008). Collaboration is defined as working together. Collaboration is described by Soosay *et al.* (2008) as an inter-organisational relationship type in which the supply chain partners agree to invest resources, mutually achieve goals and share information. As stated by Barratt (2004), many researches when talking about collaboration cite mutuality of benefit, rewards and risk sharing together with the exchange of information as the foundation of the collaboration (Barratt, 2004). Simatupang *et al.* (2004) defined supply chain collaboration as two or more independent firms jointly working to align their supply chain processes so as to create value to end customers and stakeholders with greater success than acting alone (Simatupang *et al.*, 2004).

Examples of collaboration in the supply chain has started as early as the 1980s. Large organizations such as Wal Mart and Proctor and Gamble were able to replace the early arm's length relations with durable arm's length relations and strategic partnerships (Skjoet-Larsen *et al.*,

2003; Hoyt and Huq, 2000; Holmstrom *et al.*, 2002). In today's business, many companies have worked closely with their suppliers include Dell, IBM and Hewlett Packard.

The successful deployment of IT technologies may help organizations to achieve logistics success (Lai *et al.*, 2004). Past IT technologies that were applied to supply chain include Electronic Data Interchange (EDI) and Enterprise Resource Planning (ERP) (Van Donk, 2008), With the advancement in IT technologies, in particular internet technologies, many companies are employing IT technologies in the implementation of collaborative supply chain management. The potential of IT applications for a collaborative supply chain is summarized by Handfield and Nichols (1999) as cited in Power (2005):

"With the emergence of the personal computer, optical fiber networks, the explosion of the Internet and the World wide web, the cost and availability of information resources allow easy linkages and eliminates information related time delays in any supply chain network" (Handfield and Nichols, 1999, p.6).

IT technologies such as EDI and E-Commerce have been applied in a collaborative supply chain environment. However, with the emergence of web technologies such as Extensible Markup Language (XML) and Web

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