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The relationship between supply chain factors and adoption of e-Collaboration tools: An empirical examination

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ABSTRACT

Purpose: The principle aim of this paper is to empirically investigate the relationship between supply chain factors and the adoption of e-Collaboration tools in the supply chain of Electrical and Electronic (E&E) organizations in Malaysia.

Design/methodology/approach: Data for this study were collected using a self-administered questionnaire that was distributed to 400 E&E organizations in Malaysia. Of the 400 questionnaires posted, 109 usable questionnaires were returned, yielding a response rate of 27.25%. Correlation and multiple regression analyses were applied to analyze the data collected.

Findings: The supply chain factors affecting the adoption of e-Collaboration tools are trust, product complexity and product volume and frequency. Trust is found to have the strongest influence on the adoption of e-Collaboration, followed by product complexity and product volume and frequency.

Originality/value: The findings contribute towards an understanding of what supply chain factors influence the adoption of e-Collaboration tools, which is essential in the implementation of collaborative supply chain. In terms of theoretical contribution, this study has extended previous research conducted in Western countries and advances our understanding of the association between supply chain factors and adoption of e-Collaboration tools in a developing economy. Unlike existing adoption research which emphasizes on organization, innovation and environment factors, this research shows that supply chain factors are important in the adoption of technologies in the supply chain. Findings from this research can help organizations in their planning to adopt e-Collaboration tools as they will be able to apply strategies based on the findings from this research.

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1. Introduction

Supply chain management (SCM) has been discussed widely in recent years and has been recognized as extremely important due to today's competitive world driven by globalization, global sourcing, emphasis on time and quality based competition, and their contributions to

the environmental uncertainty (Mentzer et al., 2001; Chou et al., 2004). SCM is defined as a "set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses, and stores, so that merchandise is produced and distributed at the right quantities, to the right location, and at the right time, in order to minimize system-wide costs while satisfying service level requirements" (Shimchi-Levi et al., 2000, p. 1; Park and Krishnan, 2001). One popular research area in SCM is the study of collaboration (Horvath, 2001; Simatupang and Sridharan, 2005; Min et al., 2005; Kioses et al., 2007). Collaboration

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