



Supply chain management practices in the electronics industry in Malaysia

Consequences for supply chain performance

Veera Pandiyan Kaliani Sundram

Department of Business, Universiti Teknologi MARA, Segamat, Malaysia

Abdul Razak Ibrahim

Department of Business, University Malaya, Kuala Lumpur, Malaysia, and

V.G.R. Chandran Govindaraju

Malaysian Industry-Government Group for High Technology, Selangor, Malaysia

Abstract

Purpose – The purpose of this paper is to explore the effects of different dimensions of supply chain management practices (SCMP) on supply chain performance (SCP) in the electronics industry in Malaysia.

Design/methodology/approach – The study employed the quantitative method where convenience sampling and self-administrated survey questionnaires were sent to 125 electronics firms in Malaysia. The research framework was tested using variance-based structural equation model, the partial least squares (PLS) method.

Findings – The empirical results of PLS indicate that six of the seven dimensions of SCMP have a significant positive effect on SCP. Furthermore, agreed vision and goals shows a greater influence than other dimensions of SCMP.

Research limitations/implications – This study took a narrow focus solely on the electronics manufacturing industry with a relatively small sample size of respondents. Also the data were only collected from single respondents in an organization. However, being the first study to explore the dimensions of SCMP and how those dimensions relate to SCP, the study shapes the pathway for future research.

Practical implications – The results offer insights to SCM practitioners and policy makers on the importance of SCMP to increase the competitiveness of manufacturing industry in terms of SCP.

Originality/value – This study employs a newly developed framework based on existing theoretical arguments to empirically examine the relationship between two important factors, the SCMP and SCP. This study is perhaps one of the first to address the effect of SCMP that includes combination of comprehensive practices and system approach towards the overall performance of the supply chain.

Keywords Supply chain management practices, Performance, Manufacturing industries, Partial least squares, Malaysia, Electronics industry

Paper type Research paper



1. Introduction

Globalization has driven many corporations to widen their resources and capability enhancement from internal environmental practices to greater heights. Attention is increasingly shifting towards external collaboration and networking outside the boundaries of the organization. This requirement has become essential in order to be competitive locally and across the borders (Oliver and Webber, 1982; Lambert *et al.*, 1998). As to achieving this, organizations need to have strong upstream and downstream integration of their elaborate network of business relationships. Therefore, there is an imminent need for supply chain management (SCM) in all sectors across each value chain entities. SCM has drawn increasing attention from many practitioners and scholars in recent years (Bechtel and Jayaram, 1997; Burgess *et al.*, 2006) due to the benefits of SCM for operational success (Croom *et al.*, 2000). In the corporate world, in order to meet customer requirement, the integration of various business processes such as demand planning and forecasting, procurement, manufacturing and assembly, distribution and return of effective and efficient management of flow of resources from point of origin to point of destination has become important parts of SCM (Lummus and Vokurka, 1999; Mentzer *et al.*, 2001; New, 1997). SCM also includes the total connectivity between the upstream (supply and manufacturing) and downstream (distribution) value chain entities in order to achieve competitiveness (Hong and Jeong, 2006; Boddy *et al.*, 2000). Similarly, Hong and Jeong (2006) referring to the works of Carmignani (2009), Lambert and Cooper (2000) and Zhao and Simchi-Levi (2002), defined SCM as:

[...] is a set of approaches utilized to effectively integrate suppliers, manufacturers, logistics, and customers for improving the long-term performance of the individual companies and the supply chain as a whole.

As such, the primary role of SCM is to meet customer requirement in terms of providing customer with the right product (Dale *et al.*, 1994) of right quality (Carmignani, 2009; Brewer and Speh, 2000) and quantity (Chan *et al.*, 2001) from a right source (Carr and Smeltzer, 1999) at right price (Chin *et al.*, 2004), and finally the utilizing the right technology (Boubekri, 2001; Basnet *et al.*, 2003). The strategic nature of SCM practices (SCMP) will be able to explain the dual purpose of SCM namely to improve the performance of an individual organization and to improve the performance of the entire supply chain (Wong *et al.*, 1999). In order to be highly competitive and to achieve sustainable profitability growth, SCM seeks close integration of internal functions within firm and external linking with suppliers, customers, and other channel members. This could be achieved through effective construction of various SCMP (Kim, 2006). Literatures have highlighted on the need to understand SCMP, which is becoming an essential prerequisite, to staying in the competitive global race and to grow profitably (Power *et al.*, 2001; Moberg *et al.*, 2002; Sezen, 2008).

However, in spite of the key role of SCMP, far limited and scant scholarly investigation has been undertaken to present a theoretical viewpoint, supported by empirical evidence (Basnet *et al.*, 2003), on how SCMP yield performance gains at firm level and improve the total supply chain performance (SCP). In addition, although some organizations have realized the importance of implementing SCMP, they often do not know exactly what to implement, due to a lack of understanding of what constitutes a comprehensive set of SCMP (Li *et al.*, 2006b) especially in emerging markets. For instance, in the case of the semiconductor industry in Malaysia, Rajagopal *et al.* (2009a) discussed on why