

# Supply Chain Management Practices and Firm Performance: An Empirical Study of the Electronics Industry in Malaysia

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## ABSTRACT

*Supply chain management (SCM) is the integration and strategic alliance involving all the value-creating elements in the supply, manufacturing, and distribution processes from raw material extraction, the transformation process, and end user consumption. This paper explores the SCM activities carried out by electronic manufacturing organizations in Malaysia and determines the correlation between SCM practices and firm performance. A self-administrated questionnaire based survey technique was employed to ascertain the status of SCM adoption and the practices in SCM that are significant for Malaysian electronics manufacturers. The findings suggest that the adoption of SCM activities is reasonably moderate.*

*Keywords: Electronics Industry, Firm Performance, Malaysia, Supply Chain Management, Supply Chain Practices*

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## INTRODUCTION

Supply chain management (SCM) is the term used to describe the management of the flow of materials, information, and funds across the entire supply chain; from suppliers to component producers to final assemblers to distribution (warehouses and retailers), and ultimately to the consumer. In fact, it often includes after-sales service and returns or recycling (Silver, Pyke, & Peterson, 1998; Johnson & Pyke, 2000). Supply chain management has generated much

interest in recent years for a number of reasons. Many managers now realize that actions taken by one member of the chain can influence the profitability of all others.

### Objective of Study

The primary objective described in this paper is to explore SCM practices and the relationship with firm performance in the manufacturing sector in Malaysia. The research questions are “How widely are these SCM concepts implemented in practice?” and “How well do SCM practices correlate with firm performance?” For the purpose of this study, twenty-five commonly

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cited SCM practices from the literature were identified (Table 1) to describe the construct of SCM practices. These included practices relating to supply and materials management issues, operations, information technology and sharing, and customer service. In terms of the firm performance measurement, we examine whether the aggregate performance of a firm, as assessed by operations excellence, revenue growth, and customer relationships, is influenced by supply chain practices. Moreover the uniqueness of this study to our understanding and knowledge is implicit as there are no published studies on supply chain management practices in Malaysia.

## Literature Review

The objective of this section is to perform a literature review of the issues relating to the practices and performance of SCM. Studies on supply chain management (SCM) practices in different industrial sectors allow special features to be distinguished to the applied practices, and a consequent improvement to SCM theories. In this context it is best to start with a few samples in this area from previous research that are regarded as very valuable. To date, studies have been conducted on various industrial sectors including pharmaceutical (Lurquin, 1996), apparel (Dapiran, 1992; Christopher & Peck, 1997), grocery (Ferne, 1995; Zairi, 1998), computer (Magretta, 1998), automobile (Helper, 1991; Choi & Hong, 2002), chemical (Vlasimsky, 2003; Catalan & Kotzab, 2003), telecommunication (Reyes et al., 2000) and agriculture/food (Wilson, 1996; Cunningham, 2001). Most of the available literature on SCM is concerned with advocating SCM practices. Fox (1991) and Michael (1996) suggest that manufacturers should synchronize the entire supply chain as a single business entity and integrate the flows across the supply chain in order to reduce costs, improve customer service, and ward off impending competitive pressures in manufacturing. Balsmeier and Voisin (1996) highlighted the importance of SCM practices through strategic partnerships, information shar-

ing and improved communications. Integrating the supply chain gives the business more options in competitive strategy. Ragatz et al. (1997) found that supplier memberships in new product development teams contributed significantly to the success of these teams. The mechanism through which SCM practices improve a firm's performance hinges on lead-time reduction (Towill, 1996). Literature suggests (Slywotzky et al., 2000) that a firm's aggregate performance relative to its competition comprises operations excellence, revenue growth, and customer relationships. Operations excellence is the extent of the focal firm's responsiveness to customers and improvements in productivity relative to its competition (Fisher, 1997; Simchi-Levi et al., 2000). Customer relationships focus on the bond and loyalty between a focal firm and its customers, and the focal firm's intimate knowledge about customer-related preferences (Groves & Valsamakis, 1998; Malhotra et al., 2005). Growth in revenues includes sales from existing products and from new products and markets (Kalwani & Naravandas 1995; Zahra & George 2002).

## Methodology

A detailed description of the research method will be discussed, comprising research design, sampling method and type, measurement of concepts and their operational definitions and finally the dimensions used to design the questionnaires.

**Research Design,** This is a descriptive and correlation study to understand the SCM practices and performance of the electronic manufacturing sector of the selected companies. The research was done in a non-contrived setting with no interference to the normal work routine of the population. It is a one-shot study, and the unit of analysis is manufacturing organization.

**Sampling,** A non-probability sampling method was used that specifically employed the convenience sampling technique. The

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