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Supply Chain Management Practices and Supply Chain Performance Effectiveness

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1. Chapter 1: Introduction

1.1. Research Background

Over the past two decades, supply chain management (SCM), emphasizing the interdependence of buyer and supplier firms working collaboratively to improve the performance of the entire supply has generated extensive interest in both academic and practitioner communities Shin and Collier others (2000).

Supply chain management is an integrated approach beginning with planning and control of materials, logistics, services, and information stream from suppliers to manufacturers or service providers to the end client; it represents a most important change in business management practices (Fantazy and Kumar Others 2010). It is one of the most effective ways for firms to improve their performance (Ou And Liu Other 2010).

SCM includes a set of approaches and practices to effectively integrate suppliers, manufacturers, distributors and customers for improving the long-term performance of the individual firms and the supply chain as a whole in a cohesive and high-performing business model Chopra S, Meindl P (2001).

A successful SCM implementation is expected to enhance the relationship between upstream suppliers and downstream customers, and thereby increase customer satisfaction and firm performance. Prior research has indicated SCM as a key driver of firm performance (Wisner and Leong 2005).

Everyone agrees that effective supply chain management can provide a major source of competitive advantage. The goal of a supply chain manager must therefore be to link the end customers, the channels of distribution, the production processes and the procurement activity in such a way that customers' service expectations are exceeded and yet at a lower total cost than the competition Many SCM studies were conducted in developed countries.

Furthermore most of the previous research focuses on the relationship between supply chain management practices and organizational performance Yap Lang Ling, Cheng Ling Tan (2012). in the other side the supply chain of performance there are some studies focused on measuring supply chain performance, such as Performance metrics in supply chain management by (Bhagwat Rajat, Milind Kumar Sharma2007). Specifically in the supply chain performance effectiveness. There are very few studies Despite the importance of supply chain practices on supply chain performance there is a lack on studies that link supply chain management practices and supply chain performance effectiveness this study seeking to contribute in filling this gap, SCMP in many developing countries is different from SCMP in developed countries. This study mainly focuses on manufacturing companies. Due to the lack of studies this study aims empirically test the relationships between SCM practices and supply chain performance effectiveness of manufacturing companies.

1.2. Research Problem

Concept of the Supply Chain

The definition of supply chain management Is the integration of business processes from end user through original supplies that provides products, services, and information that add value to customers Galaskiewicz Joseph (2011) “supply chain” seems to be common across authors than the definition of “supply chain management”. (Lalonde BJ 1998). and Masters proposed that a supply chain is a set of firms that pass materials forward. Normally several independent firms are involved in manufacturing a product and placing it in the hands of the end user in a supply chain –raw material and component producers, product assemblers wholesalers, retailer merchants, and transportation companies are all members of a supply chain (Lalonde BJ 1998).

Theoretical Gaps

Supply chain management practices (SCM P)

The practice of SCM refers to complete set of actions which are done in organizations towards to improve the effectiveness in the internal supply chain. The modern evaluation of the SCM practices that comprise of partnership with the supplier, process of outsourcing, compression of cycle time, continuousness of process flow and sharing of technology and information Tan, K. C., Kannan, V. R., & Handfield, R. B. (1998). by using purchasing the quality and relations with the customer SCM practices are defined as a set of activities undertaken in an organization to promote effective management of its supply chain Suhong Lia, Bhanu Ragu-Nathanb, and other(2006). Supply base management refers to how firms utilize their supplier's processes, technology, and capabilities

to enhance supply chain performance and competitive advantage and how the manufacturing, logistics, materials, distribution and transportation functions are coordinated within organizations Billington, C., Lee H.L. and (1992), also Mentzer, JT (2001), state that SCM in practice means includes the involved companies planning and strategy for coordination of their supply chain, including collaboration between functions internally as well as across company. SCM practices are defined also as approaches applied in managing integration and coordination of supply, demand and relationships in order to satisfy consumers in effective and profitable manners. A recent study found that firms often use supplier evaluation or performance measurement to identify specific supplier deficiencies and to develop plans to address them Krause, D.R. and T.V. Scannell(2002). Such efforts may involve the measurement of supplier’s delivery, quality, and cost performance, site visits, certification of supplier’s products and processes, and the setting of performance goals.

1.2.1. Practical Gaps

The Dimensions of Supply Chain Management Practices Many authors studied supply chain management practices and there are various elements and dimensions that have measured or used to measure the supply chain practice, for more exploration in the following

1. Chin et al. (2011) information sharing, customer relationship, strategic supplier partnership, material flow management and corporate culture.
2. Inda , et al (2012) Strategic supplier partnership, customer relationship, information sharing
3. Chowa , et al (2008) There are four elements (suppliers and customer mgt, information sharing, speed of communication, supply chain features)
4. Min & Mentzer(2004) There are seven elements of supply chain practice such as agreed vision and goals, information sharing, risk and award sharing, cooperation, process integration, a long-term relationship, and a greedy supply chain leadership.
5. Chen & Paulraj (2004) Using supplier base reduction, long-term relationship, communication, cross-functional teams, and supplier involvement to measure buyer-supplier relationships
6. Tan, Lyman, and Wisner,(2002) Six elements of supply chain practice (using factor analysis) supply chain integration, information sharing supply chain characteristics customer service management, geographical proximity, and JIT capability
7. Alvarado & Kotzab,(2001) Using inter-organizational systems in supply chain practice such as EDI, and elimination of excess stock levels by postponing customization toward the end of the supply chain
8. Tan, Kannan, and Handfield (1998) Supply chain practice includes purchasing quality, and customer relations
9. Donlon (1996, 117, October, pp.54–63) Supply chain practice includes supplier partnership, outsourcing cycle time compression, continuous process flow, and information sharing.

1.3. Research Significance

Customers and Suppliers Management

1.3.1. At the practical level

1.4. Research Questions

How we can enhance the SCM Performance Effectiveness?

1.5. Research Objectives

The objective of this research is to examine the linkages between a firm's competitive environment, TQM, supply base management, and customer relation practices, and firm performance. This objective is driven by the notion that although firms have reengineered their internal operations to achieve higher quality levels, they have also become more dependent on their suppliers. As noted earlier, firms that have out-sourced non-core activities have realized they must now effectively manage the performance and capabilities of their suppliers of outsourced products and services. It can therefore be surmised that firms reporting the highest levels of financial and operational performance will be emphasizing not only internal quality initiatives, but also initiatives relating to the management of all elements of their supply chain including customers and suppliers, and the quality of delivered products. To test this proposition, the following hypotheses are proposed:

- A firm's competitive environment and management's responsiveness to it affects its performance.
- The use of TQM tools and practices positively affects performance.
- Effective management of the supply base positively affects performance
- A customer relations focus is positively related to high levels of performance.

1.6. Research Hypotheses

The SCM framework developed in this study proposes that SCM practices have a direct impact on the operational performance of SMEs. SCM practices are expected to increase an organization's operational performance through flexibility, reduced lead time, cost saving, resource planning, reduced inventory level and forecasting. As noted earlier, various SCM practices have an impact on various aspects of operational performance. This leads to the following hypothesis:

H1. with higher levels of SCM practices will have higher levels of operational performance.

SCM practices influence not only operational performance, but also SCM-related

organizational performance. They are expected to enhance the sales, integration between its departments and coordination with its suppliers and customers. Thus, we expect that:

H2. with higher levels of SCM practices will have higher levels of SCM-related organizational performance.

The relationship between financial and non-financial measures of organizational performance has long been discussed in organization and strategy literature. York and Miree (2004) argue that non-financial performance such as improved quality, innovativeness and resource planning should actually reduce costs, and thus have a positive effect on measures of financial performance. Increased quality helps SMEs to retain current customers and create greater customer loyalty, which in return may increase market share and organizational performance (Rust et al., 1994). A number of prior studies demonstrate positive relationship between operational performance Impact of SCM practices109 dimensions such as product quality, (Larson and Sinha, 1995) innovation and R&D (Prajogo and Sohal, 2001; Singh and Smith, 2004) employee performance (Fuentes-Fuentes et al., 2004). Increase in operational performance may lead to high levels of organizational performance related to SCM in terms of increased sales, organization-wide coordination and supply chain integration. Hence, a positive relationship between operational performance and SCM-related organizational performance can be proposed.

1.7. Research Model

1.8. Research Methodology

A survey instrument was developed to investigate the impact of SCM practices on the performance of SMEs. The questionnaire was pre-tested several times to ensure that the wording, format, and sequencing of questions were appropriate. Occasional

missing data on variables was handled by replacing them with the mean value. The percentage of missing data across all data were calculated to be relatively small. There is no consensus on the definition of SME, as variations exist between countries, sectors and even different governmental agencies within the same country (Yusof and Aspinwall, 2000). In line with small business research, this study adopted the number of employees as the base for the definition of SME. An SME is identified as one that employs fewer than 250 staff. The minimum of at least ten employees was also chosen in order to exclude micro firms that would not be suitable for the purposes of this study. This range is consistent with the definition of an SME adopted by both the Turkish State Institute of Statistics (SIS) and Turkish Small Business Administration and also by a number of European countries such as Norway and Northern Ireland (Sun and Cheng, 2002; McAdam and McKeown, 1999).

Data for this study was collected using a self-administered questionnaire that was distributed to 800 SMEs operating in the manufacture of fabricated metal products and general purpose machinery (NACE codes 28 and 29) within the city of Istanbul in Turkey. For centuries as being the largest city of Turkey, Istanbul has been undisputedly the main industrial and trade centre. The city of Istanbul accounts for nearly 75 per cent of total capital investment generating nearly 23 per cent of Turkish GNP (Berkoz and Eyuboglu, 2005). The sample was selected randomly from the database of Turkish Small Business Administration (KOSGEB). The KOSGEB database includes a total of 12,270 SMEs in Istanbul, which accounts for nearly 28 percent of all SMEs registered throughout Turkey. The sampling frame consists of 1,917 SMEs operating in both industries in Istanbul.

It was requested that the questionnaire be completed by a senior officer/executive in charge of SCM practices. The responses indicated that a majority of the respondents completing the questionnaire were in fact members of the top management. Of the 800 questionnaires posted, a total of 229 questionnaires were returned after one follow-up. A total of 26 questionnaires were eliminated due to largely missing values.

The overall response rate was thus 25.4 percent (203/800), which was considered satisfactory for subsequent analysis. A comparison of the annual sales volume, number of employees and sub-industry variation revealed no significant differences between the responding and non-responding firms ($p > 0.1$). Thus, the responses adequately represented the total sample group.

1.9. Scope of The Study

1.10. The Suggested Project Structure

2.Chapter 2: Literature Review

2.1. Introduction

Brief introduction for the chapter

2.2. The independent variable

2.3. The dependent variable

2.4. The relationship between the independent and the dependent variables

2.5. Conclusion

References

مع أطيب الأمنيات بالنجاح والتوفيق

It's Never Too Late to START. Just Begin!

Best of Luck 😊 *Dr. Mona Moustafa Elashry*

