

# Book Review: A Handbook on Supply Chain Management

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*Abstract: Supply Chain Management can be viewed as both an emergent field of practice and an emerging academic discipline. For academicians, it is an emerging field of study, where the primary outputs are theory, insights, and research. For practitioners, it is an emergent field where the outputs involve new relationships, new developments, and new practice. Supply chain management is ultimately about influencing the behavior of professionals and enriching knowledge of students in particular directions and in particular ways. Supply chain management, a field developed from business practice and research, is undergoing a major transformation. It is changing from tactical in nature (where the major focus is on cost and delivery) to a field that is strategic in nature. This book is a compilation of 18 papers that primarily take stock of developments in theory and practice in some important areas of current research.*

**Keywords:** supply chain, Supply chain management, SCM

## 1. Introduction

“Supply Chain Management” (SCM) can be viewed as both an emergent field of practice and an emerging academic discipline. Neither domain is fully developed but each perspective has considerable potential. The future progress of each will be enhanced and indeed is ultimately dependent upon the other. For academicians, it is an emerging field of study, where the primary outputs are theory, insights, and research. For practitioners, it is an emergent field where the outputs involve new relationships, new developments, and new practices. While both academia and practitioners are potentially interested in the same issues, they do not always see these issues in the same way. Hence, the purpose of this book is to take stock of developments in theory and practice in some important areas of

current research.

Supply Chain Management is ultimately about influencing behavior of professionals and enriching knowledge of students in particular directions and in particular ways. SCM, a field that developed from business practice and research is undergoing a major transformation. It is changing from tactical in nature (where the major focus is on cost and delivery) to a field that is strategic in nature. However, the future issues and challenges facing managers and executives are just now becoming understood by supply chain management researchers. The findings from study of literature show that while the focus of the current tactical supply chain view is relatively limited to the issues of delivery, risk and cost, the supply chain view of the future is more complex and dynamic and may center around leadership and collaboration. The findings also show that there is a marginal difference between researchers and practitioners in terms of how they view the issues. Finally, the literature uncovers major obstacles that must be resolved before the strategic potential of future-state supply chains can be realized.

Supply Chain Management is now a business “fact of life”. Increasingly, managers, researchers, and educators performance (as measured in terms of lead time, cost, quality and flexibility) and on corporate performance such as profitability, sustainability and competitiveness. Our view of the supply chain and how it is managed is changing. In the past, SCM was viewed as a system primarily responsible for placing orders and managing the flow of orders and information with immediate suppliers. Today, supply chain managers are being asked to improve customer service, enhance continuity of supply, reduce the exposure of the firm to unanticipated risks in the supply chain, improve the new product design process,

reduce environmental wastes, improve environmental performance, and contribute to enhanced product and service quality. To achieve these objectives, managers must turn to a new supply chain – a supply chain that is more dynamic and that continues to evolve.

## 2. Review of the Book

There are 18 contributors to this particular book. These contributors are capable researchers and have demonstrated able leadership in research in terms of publications in reputed journals providing consulting advices to many corporations and guiding research scholars. All these contributions have been peer-reviewed. It is worthwhile to mention a few salient features of the contribution of each paper in this section:

The authors of the first chapter, entitled “Foundations for a Successful Sales and Operations Planning Program”, has elaborated the reasons for failure of supply chain management program and has outlined that this paper does not provide information on “what” and “why” of S&OP, instead it dwells into the details of “how” the key structural changes that are required for the success of an S&OP program.

The second chapter entitled “Supply Chain Management issues in Small and Medium Scale Enterprises (SMEs): Select Insights for Contemporary Researchers and Industry Practitioners” highlighted the importance of supply chain management of small and medium enterprises as they are growing in number across the world. Insights are needed to understand the supply chain management issues and identify strategies for formulation and adoption.

Next chapter entitled “Supply Chain Management in Retail Outlets” discusses various aspects of Indian retail business. This paper provides a review of literature on product assortment models, space allocation models and directions to conduct research towards an integrated model incorporating consumer behavior variables such as variety perception, substitution behavior, and format choice. Since retail sector is gaining importance, this paper was a timely contribution.

The fourth chapter entitled “Supply Chain Management Frameworks – A Comparative

Evaluation” evaluated three major supply chain frameworks (e.g. Global Supply Chain Frameworks – GSCF, Supply Chain Operations Reference – SCOR, and Dimensions and Development Model) in terms of scope, intra-company connectedness, inter-company connectedness and value generation.

The paper entitled “Agri-Food Supply Chain” has defined the scope that the Agri food supply chain encompasses cold chain infrastructure, third party logistics, food processing industry and retail. Background integration and value chain management are the new strategies initiatives for various agri food supply chain in Indian context.

In chapter six, entitled “Evolving Differential Purchase Strategy Using Portfolio Models for the Automotive Industry” the author outlines the recent developments in the purchase function and also evaluates the portfolio modeling as a tool to develop differentiated purchase strategy depending on the purchase situation.

The chapter seven entitled “Vendor selection in Supply Chain Environment using a Particle Swarm Optimization Algorithm” present the optimization aspects of vendor selection in supply chain environment. The optimization is carried out using a non-traditional optimization technique known as Particle Swarm Optimization (PSO) algorithm.

In the next chapter, entitled “Decision Tree-based Model for Supplier Selection Considering Risks and Uncertainties”, the authors have introduces a decision tree approach to determine the best supplier by considering multiple cost and risk factors. They have also carried out sensitivity analysis of market fluctuation on the supplier selection decisions.

The paper entitled “Collaboration in Supply Chain Management” provides a detailed overview of collaboration as a strategic tool for effective supply chain management to get competitive advantage. The paper reviews the literature on collaboration in supply chain management and outlines its advantage. Various models developed by many researchers on collaboration have been depicted and discussed.

The chapter ten entitled “A Multi-attribute Framework for Collaborative Supply Chain: Evaluation of Horizontal Relationships” uses the Analytic Hierarchy

Process-Fuzzy Logic Model (AHP-FLM) approach for developing a framework to comprehensively assess the degree of collaboration with individual horizontal collaboration initiatives.

In the next chapter, entitled “Quantitative Models to Evaluate Supply Chain Coordination Adopting Various Coordination Mechanisms, the author presents a coordination theory to build a theoretical model to understand the utility of coordination mechanisms followed by Multi-Criteria-Decision-Making (MCDM) model to evaluate supply chain coordination with quantitative measure.

The following chapter entitled “Impact of Integration between ERP and SCM on different industry sector”, aims to study the impact of integration between ERP and SCM on different industry in terms of their advantages and disadvantages on entire supply chain management domain. This paper also presents challenges and critical success factors in potential system integration.

In chapter thirteen entitled “Formulation of Green Supply Chain Contracts: A Two Player Evolutionary Game Approach”, the authors look for a synergetic alliance between the environmental and commercial benefits by establishing coordination between producer and the retailer to adjudicate their strategies to trigger green practices. The focus of the paper has been on maximizing economic profits by leveraging upon the product’s greenness. A two player game model has been formulated to stand synonymous to the situation considered.

The paper in the next chapter, entitled “Analysis of Barriers in Reverse Supply Chain: An Indian Perspectives” use the Interpretive Structural Modeling (ISM) methodology to understand the mutual influences among the barriers. By analyzing the barriers, the managers can be able to extract crucial barriers that hinder the reverse logistics activities and formulate policies accordingly.

In chapter fifteen, entitled “Supply Chain Performance Measures: A Comprehensive Review”, the authors demonstrates supply chain (SC) performance measures as significant elements of organizational competitiveness. The measures keep a check on the non-value adding activities of a business value chain.

This paper is a review of the existing literature on classification of SC performance measures.

The following chapter, entitled “Reengineering of Logistics Value Chain of a Petroleum Products Marketing Company” discuss many complex managerial problems faced by a public sector undertaking IOCL in its mission towards attaining excellence. This paper dwells on the formulation of a value chain reengineering model.

In the next chapter, titled “Supply Chain Network Design under Uncertainty: A Case of Indian Export Industry”, the authors focused on an optimized design of a distribution network taking into account the variability of the final customer demand. In particular, this paper studies various network scenarios of the Indian Export Industry, considering the uncertainty that prevails in the business environment due to variables like demand uncertainty, exchange rate fluctuations, fixed cost of plant at various country, and variable cost of production, etc.

The last chapter, entitled “Supply Chain: Next Generation Issues and Concerns” presents several issues and concerns regarding future supply chain as natural disasters, problems in outsourcing and import-export issues with regard to goods and raw materials and several related issues, such as taxation, cultural aspects, risk and reliability and environmental rules. In Next-Generation supply chain management, producing modes and the methods of manufacturing in the organization are gradually turning from product-oriented to customer centric, demand and service-oriented.

### 3. Discussion

In this new era of supply chain management, managers and researchers must recognize two inherent features. First, SCM is a field that is rapidly changing. These changes are driven by new technology, greater customer demands, competitive initiatives, and environmental regulations. Second, SCM is a field where the academic literature relative to the experiential knowledge developed by practitioners is comparatively limited. More importantly, there is a lag between the time that a significant change in supply chain management takes place and when that change is reported in relevant research outlets. In light of these

conditions, it becomes important to assess the impact of these changes both on the firm and on the theory and practice of SCM. That was the elementary goal of this edited book. The papers presented in this book are drawn from varieties of situations with multiple perspectives of many researchers.

During the past two decades, we have seen a pronounced upsurge in research in Supply Chain Management (SCM) across the globe. SCM as a discipline has a very broad spectrum and it spans a range of different functional areas. The approaches applied in SCM differ in several ways. For instance, research-oriented approaches may differ with respect to theoretical concerns such as the entity of analysis, the type of company or companies investigated, the determination of problem relevance, the reliability and validity of the research results, the use and interpretation of the generated theory and the choices related to methodology (e.g. qualitative versus quantitative research).

#### 4. Conclusion

Providing such a book is important for at least three reasons.

First, doctoral/postgraduate students must, in the course of their dissertation projects, provide a literature review of what they have researched within a given topic/area. The manner in which papers are referenced here makes it possible to conduct a detailed investigation of their approaches, such as research frameworks, methodologies, applied theories and empirical observations. Thus, this book aims to provide postgraduate and research students, faculty, practitioners an overview of what has been researched in the recent past in some important areas of SCM.

Second, providing such an overview also makes it possible for the professional managers to understand the trends and new development in methodologies and approaches having practical relevance.

Third, such a contribution makes it possible to identify gaps between current, state-of-the-art thinking within SCM and the themes actually researched in.

#### Reference:

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