SUPPLY CHAIN MANAGEMENT PRACTICES IN RETAILING: A CONSUMER PERCEPTION STUDY IN VARANASI REGION

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ABSTRACT
Retailing in the Western world is mature, saturated and subjected to intense competition. Growth and survival in today's retail world totally depends on sustainable competitive advantage and developing a sustainable competitive advantage requires serious commitment and a customer orientation attitude. On the basis of market research and intelligence, retailers have to understand customer needs as well as consumer buying behavior so that they are equipped to delight their customers. Retailers need to share information with their suppliers relating to customer buying behaviors in an instant and consistent format. Sharing of information needs a foundation of mutual trust and long term partnership and a vision of one goal – satisfying the customers’ needs at low cost. This kind of orientation and strategy is nothing but a step towards 'managing a smooth supply chain'. So this paper attempts to study consumer perception on adopted SCM practices in retailing as a primary objective and to study Consumer perception on adopted SCM benefits in organized retailing and in pet (local) retailing as secondary objective.

KEYWORDS: Supply Chain Management, Retailing, Customer Perception, Varanasi

INTRODUCTION
Supply chain management (SCM) practices may be defined as a set of activities undertaken to promote effective and efficient management of supply chains. These include supplier partnership, physical movement of goods, meeting customer demands and information sharing throughout the supply chain. Some of the key SCM practices that impact performance are related to estimation of customer needs, efficient and effective delivery, integration and collaboration throughout the supply chain, sharing of information and vision using ICT as well as informal methods and use of specialists for performing specific jobs across the supply chain. All of these practices impact logistics and supply chain performance.

The de-regulation of the Indian economy in the 1990s has attracted global players and has unleashed a new competitive spirit. However, a distinctive characteristic of the Indian economic environment is the inadequacy of basic inputs normally required to support organized economic activity. The UPS Asia Business Monitor Survey, 2004, finds that besides the lack of government support, poor logistics infrastructure and poor supply chain efficiency are the major obstacles to competitiveness in India. The Indian infrastructure comprising roads, railways, airports, seaports, ICT and energy production is poorer as compared to many other countries. However, things are changing for the better at a fast pace. A few years ago, SCM were seen as necessary evils in India; today they are seen as a matter of survival and competitive advantage. As companies look at logistics and SCM strategically, they turn to specialized service providers to cut out non-core activities from within. A rising focus on outsourcing is leading to a surge in
business performance for logistics service providers. One offshoot of the demand for logistics services is that many companies are changing their names to include ‘logistics’ somewhere as well, much like the dot-com boom times in the early 1990s.

Worldwide, best-in-class companies have invested in enabling infrastructure and technology to realize their supply chain vision into a reality. These include integrated supply chain cost models for decisive inventory management, technology for handling supply chain throughput and information systems capable of fostering visibility across organizational boundaries. Dell Computers and Wal-Mart were able to achieve leadership positions because of their efficient and effective supply chain management practices. Both of these have invested enormously in ICT to help them have continued focus on customer needs and supply chain efficiencies. Many instances of novel and innovative supply chain practices such as cross-docking, Collaborative Planning, Forecasting and Replenishment (CPFR), extensive use of bar-codes and now RFID, and direct-to-home delivery have been introduced by these firms. Wal-Mart had its own satellite communication system as early as 1983. Wal-Mart’s PoS data is shared with its suppliers to reduce the dependence on forecasts.

Similarly, there are multi-billion companies which have shifted focus from courier and cargo to logistics and supply chain; from being freight forwarders to integrated shippers; and from customs clearances to consultants. Indian SCM service providers are also evolving rapidly. The shift in service providers from just movers of material to logistics to supply chain services has quickened in the past few years. Truckers are moving up into integrated haulers; large Indian companies with multi-million spends on logistics are hiving off entire divisions into service providers who handle not just the parent’s logistics but also of others; others are forming joint ventures to leverage skills. IT companies now provide not just the hardware and software, but consultancy for solutions, examples being Satyam, Wipro, Infosys and TCS. Big players like DHL have invested US $ 250 million in India and more is on the way. It has already acquired Blue Dart, the top firm in air logistics business. Container Corporation of India (Concor), at US$ 380 million, the largest listed firm in logistics in India is diversifying. Others, like Gati, XPS and Safexpress, are expanding to UAE, Sri Lanka, Singapore and Bangladesh as well as into new areas like modern warehousing.

Industry and academic estimates put SCM spend in India at approximately 13% of the Gross Domestic Product (GDP). Global estimates for this vary and are around 13% of GDP in China and about 9% of GDP in the US. The transportation cost in India accounts for nearly 40% of the cost of production, with more than half the goods being moved by road. Trucking accounts for nearly 70% of transportation and accounts for 60% of all logistics cost. 67% of truck ownership is in the hands of small unorganized players.

Supply Chain Management Process

Figure 1 depicts the Supply Chain management process which encompasses all activities associated with the flow and transformation of goods from the raw material stage (extraction), through to the end user, as well as the associated information flows. Material and information flow both up and down the supply chain.
A supply chain, logistics network, or supply network is a coordinated system of organizations, people, activities, information and resources involved in moving a product or service in physical or virtual manner from supplier to customer. Supply chain activities (value chains or life cycle processes) transform raw materials and components into a finished product that is delivered to the end customer.

This supply chain begins with the extraction of raw material and includes several production links, for instance; component construction, assembly and merging before moving onto several layers of storage facilities of ever decreasing size and ever more remote geographical locations, and finally reaching the consumer.

Elements of SCM

Customer: The customer starts the chain of events when they decide to purchase a product that has been offered for sale by a company. The customer contacts the sales department of the company, which enters the sales order for a specific quantity to be delivered on a specific date. If the product has to be manufactured, the sales order will include a requirement that needs to be fulfilled by the production facility.

Planning: The requirement triggered by the customer’s sales order will be combined with other orders. The planning department will create a production plan to produce the products to fulfill the customer’s orders. To manufacture the products the company will then have to purchase the raw materials needed.

Purchasing: The purchasing department receives a list of raw materials and services required by the production department to complete the customer’s orders. The purchasing department sends purchase orders to selected suppliers to deliver the necessary raw materials to the manufacturing site on the required date.

Inventory: The raw materials are received from the suppliers, checked for quality and accuracy and moved into the warehouse. The supplier will then send an invoice to the company for the items they delivered. The raw materials are stored until they are required by the production department.
Production: Based on a production plan, the raw materials are moved inventory to the production area. The finished products ordered by the customer are manufactured using the raw materials purchased from suppliers. After the items have been completed and tested, they are stored back in the warehouse prior to delivery to the customer.

Transportation: When the finished product arrives in the warehouse, the shipping department determines the most efficient method to ship the products so that they are delivered on or before the date specified by the customer. When the goods are received by the customer, the company will send an invoice for the delivered products.

Supply Chain Business Process Integration
Successful SCM requires a change from managing individual functions to integrating activities into key supply chain processes. An example scenario: the purchasing department places orders as requirements become known. The marketing department, responding to customer demand, communicates with several distributors and retailers as it attempts to determine ways to satisfy this demand. Information shared between supply chains partners can only be fully leveraged through process integration.

Supply chain business process integration involves collaborative work between buyers and suppliers, joint product development, common systems and shared information. According to Lambert and Cooper (2000), operating an integrated supply chain requires a continuous information flow. However, in many companies, management has reached the conclusion that optimizing the product flows cannot be accomplished without implementing a process approach to the business. The key supply chain processes stated by Lambert (2004) are:

- Customer relationship management
- Customer service management
- Demand management
- Order fulfillment
- Manufacturing flow management
- Supplier relationship management
- Product development and commercialization
- Returns management

Much has been written about demand management. Best-in-Class companies have similar characteristics, which include the following: a) Internal and external collaboration b) Lead time reduction initiatives c) Tighter feedback from customer and market demand d) Customer level forecasting

One could suggest other key critical supply business processes which combine these processes stated by Lambert such as:

a. Customer service management
b. Procurement
c. Product development and commercialization
d. Manufacturing flow management/support
e. Physical distribution
f. Outsourcing/partnerships
g. Performance measurement

Supply Chain Management in Retailing
Retailing in the Western world is mature, saturated and subjected to intense competition. Growth and survival in today's retail world totally depends on sustainable competitive advantage. And developing a sustainable competitive advantage requires serious commitment and a customer
orientation attitude. On the basis of market research and intelligence, retailers have to understand customer needs as well as consumer buying behavior so that they are equipped to delight their customers. Customer delight is possible if and only if retailers are able to satisfy specific and special needs with a personal touch – by offering excellent price/quality ratio. Moreover, there is a need to share this commitment and attitude with retail partners, such as suppliers, manufacturers and wholesaler. Retailers need to share information with their suppliers relating to customer buying behaviors in an instant and consistent format. Sharing of information needs a foundation of mutual trust and long terms partnership and a vision of one goal – satisfying the customers’ needs at low cost. This kind of orientation and strategy is nothing but a step towards ‘managing a smooth supply chain’. Supply chain management has evolved over the years. At every stage of evolution the concept has taken a step forward and now it has become a strategic and value added function in retailing. Despite an evolution having taken place, it has coincided with confusion in the true understanding and implementation of the concept. The concept, however, is crystal clear to those who have experienced real life implementation or researched on related cases. A simple and effective supply chain management model (as depicted in the figure below) highlights the importance of various business processes and their co-ordination.

Supply Chain Management or SCM begins with 'bargaining' with suppliers and long-term relationships. Marketing departments analyze customer needs and demands for specific products, which insure the right negotiations with suppliers. Supply management aims at the procurement and purchasing of specific products, based on partnerships with suppliers. Logistics refers to the actual movement or delivery of products. It includes movements of goods into the retail distribution centre, movements within the centre and movements out of the centre and into the retail stores. Operations are the activities involved in converting the products supplied by the supplier into product sold to the retail customer.

The main objective and intention behind a smooth SCM operation is to stimulate buying the right things at the right time at the right price – reducing the order cycle and ensuring flexibility. Supply chain management leads to fewer stock outs and to the availability of merchandise and assortments that customers want. This implies a high-perceived value of the retail store in the minds of the customer. In financial terms, SCM can result in better sales and lower markdowns for retailers.

Supply chain management, integrated logistics, ECR, Quick Response and other related concepts are mandatory as well as lucrative in today's competitive retail world. Are these concepts and management jargons meant only for big retailers or can independent retailers be party to them as well? Implementation of these concepts requires a lot of investment in terms of finance, human resource and Information Technology.

Independent retailers may not have the money or expertise to research and experiment with the feasibility of these concepts in their respective businesses. So how can these retailers introduce and create efficient supply chain models and extract benefits out of it – the way large businesses do? The answer is that the onetime investment and implementation of SCM is virtually impossible. In my view, they should work towards it in gradual stages. They can and should, if they have to survive and grow in this concentrated and competitive trading scenario; and they can do so by introducing the concept in the same way as large retailers do. The key words here are ‘responsiveness', ‘reliability' and ‘relationship'. The retailer should be agile with customer centeredness, the ability to respond and act quickly and swiftly. Reliability is related to transparency in the flow of material, with its foundation based on mutual trust. SCM’s
Effectiveness and strength lies in the quality and power of the relationship between the chain partners (all organizations within the supply chain should be termed and committed as partners). The ‘single supplier’ vision followed by some retailers has resulted in drastic and radical cost reductions and added value to the overall company's strategy. Successful supply chains are those that follow the philosophy of win-win solutions and mutual trust. 'Better, faster and cheaper' should be the logistics vision and mission. Joint and mutual strategy development, win-win thinking, transparency and information sharing are the prerequisites in achieving this vision. At the tactical level, the focus should be to reduce order cycle time and stock levels. The very first step towards achieving this should be introspection. The retailer should evaluate all the product categories in terms of their respective floor productivity and share in the total sales (a step towards category management). The products with high financial benefits should be taken as the starting point for SCM. There should be a minimum stock level (in terms of SKUs, but all possible SKUs should be present in the store for customers) for these performing categories. The retailer should either aim at a single supplier or at a number lesser than the current for these products. POS information should be communicated instantly to the supplier through EDI. The supplier would then act to deliver the sold quantity in a Quick Response. On the other hand, categories with lower financial benefits should be supported with good stock levels (based on past experiences of sales) so that the retailer does not have to order for the same repeatedly. Moreover, the retailer can also clinch a good bargain for these categories from the supplier by increasing the order quantity and highlighting the fact that market share being low, prices need to be comparatively low too.

Literature review

Andrew Cox (1999) focuses on currently inform “supply chain management thinking”. This paradigm is characterized as operational effectiveness and efficiency. A case is made for understanding supply chains from a strategic as well as from an operational perspective. Current supply chain management thinking is criticized for being a theoretical and descriptive, and a case is made for an analytical approach to supply chain thinking based around the concepts of power and value appropriation. A more analytically robust way of understanding supply chains is laid out. The author opines that firstly, it is needed to understand the physical resources that are required within a supply chain to create and deliver a finished product or service to a customer. Secondly, it must understand the exchange relationship between particular supply chain resources and the flow of revenue in the value chain. Third, it must also understand what it is about the ownership and control of particular supply chain resources that allows certain resources to command more of the flow of value than others. In understanding this, the process of analytically mapping the properties of power within supply and value chains can commence. The article provides an early indication of how this method of supply and value chain mapping provides enlightenment about the structures of power in different types of supply and value chains.

Ceren Atilgan, Peter McCullenAuthors (2011) put the point that Quick scan audit methodology is effective and efficient to upgrade effectiveness of the supply chain management. Quick scan audit methodology (QSAM) has been adapted to include some change management practices. Authors seek to relate how the company's dissemination feedback presentation sessions and implementation team-work added value to the established QSAM by: offering a new method of demonstrating a “listening ear” to employees, providing enhanced verification of the QS results, increasing “buy in” and offering the possibility of a deeper knowledge transfer and increased audit accuracy. Human-centered QS was successfully applied to number of companies with
limited resources. With the application of mathematical forecasting models, the forecasting error (MAPE) was reduced from an average of 22 to 18 per cent. Completion of production schedules was increased from 96 to 98 per cent, while packaging efficiency increased from 94 to 96 percent. Authors feel that supply chain audit can be enhanced through the integration of change management practices. The QSAM is a robust auditing tool, but it does not take account of potential resistance to change. Companies have adapted the QSAM to include some basic change management practices, effectively extending its feedback stages through wider dissemination, in order to build consensus and to improve the response to change. Supply chain improvement projects involving supply chain audit can be enhanced through the integration of change management practices.

Stephen J. New (1997) advocates an expanded scope for supply chain management research which accounts for the social function and the political and economic implications of supply chain developments. He argues that the research agenda must not be driven by the notion of efficiency alone, but should also be developed around the concept of the just supply chain. He provides a framework which sets out the range of issues which may contribute to this approach. He believes that the objectives and ideological assumptions of research need to be open to challenge and debate.

The observation of the author argue in favors of research in supply chain management that accounts for the context of supply chain management in industrial society and explicitly considers ethical, political and economic implications. The argument raises the two main issues for those who commission, conduct and “consume” research in the field: (1) the objectives and implicit ideological assumptions of research need to be open to challenge and debate. This is an important issue in management as a whole, where the lack of paradigmatic consensus means research may be challenged as much on the basis of its underlying philosophy as its substantive detail. (2) The research agenda in supply chain management must not be driven by industrial interests alone.

Goran Svensson (2010) provided insights and describes teleological approaches in the context of Supply Chain Management (SCM). A conceptual framework is outlined derived from complexity sciences to widen and enhance the exploration and understanding of SCM. Teleological approaches of SCM provide valuable insights in managing supply chains. They also provide innovative and challenging opportunities for further research in the field of SCM. The application of teleological approaches in supply chains may encourage and lead to managerial ideas and insights to anticipate and avoid deficient or erroneous grounds in the planning, implementation and evaluation of SCM. Teleological approaches make a contribution to the ongoing exploration and discussion of SCM, such as: incorporating a frame of reference from complexity sciences. The author believes that it also provides a timely topic in times of crisis as it compares different teleological approaches – some more dynamic and flexible than others.

Alain Halley, Martin Beaulieu (2009) discussed some of the most recent theories, the competitiveness of organizations is based on the development of competencies. Core competencies result from greater mastery than competitors of organizational abilities valued by customers. This paper seeks to investigate how a more thorough integration of the supply chain may be associated with greater mastery of operational competencies. Very little research has been done on the impact of supply chain management on operational competencies. Using the results of an empirical study, the paper provides a better understanding of the relationship between supply chain management practices and the development of operational competencies. It also offers a somewhat different view of the concept of supply chain integration.
Simon Croom, Pietro Romano, Mihalis Giannakos (1999) gives one of the most significant findings from the analysis has been the relative lack of theoretical work in the field when compared to empirical based studies. Our concern with the finding that the literature is primarily empirical-descriptive is that any development of a cognate supply chain management discipline requires more rigorous and structured research in the topic. It is argued that theoretical development is critical to the establishment and development of supply chain management study. However, it is not our contention that empirical studies are valueless. Rather, it is felt that the inductive–deductive dichotomy is best addressed through the constant reflection of empirical against theoretical studies. However, what is of concern is the lack of a significant body of a priori theory — a point Andrew Cox argues forcibly in his 1997 treatise. Furthermore, our content analysis of the supply chain literature highlights the contrasting themes and antecedents of the field. In some ways it is felt that this offers an even greater challenge for the development of supply chain management research. It is recognized that developments in the understanding of supply chain management require multi-disciplinarily in order addressing the contrasting antecedents. Certainly the importance of transaction cost economics and inter-organizational theory has been recognized by a number of researchers (Lamming, 1993; Harland, 1994; Croom, 1996). In addition, it is found that a number of key antecedent disciplines currently evidenced in supply chain research — included amongst these being systems thinking, information theory, industrial dynamics, production economics, social theory, game theory and production engineering. If one begins to include some of the hybrid field such as marketing or strategic management, then it is apparent that the subject is being explored from a multiplicity of perspectives.

Banri Asanuma (2006) investigates manufacturer-supplier relationships in Japan based on field research on two major industries. I first show that various modes of relations exist and that longstanding relations are more densely distributed where customized parts are transacted. Then I show that this phenomenon can be ascribed to ratings exercised by the purchasing firm on some skill accumulated by each supplier. I construct the concept of multidimensional relation-specific skill accumulated by each supplier through learning and technological investments, and relate this concept to Aoki’s work on relational quasi-rent and Williamson’s scheme to classify transactions.

**Research Methodology**

Primary Objective:
To study consumer perception on adopted SCM practices in retailing.

Secondary Objective:
To study Consumer perception on adopted SCM benefits in organized retailing and in pet (local) retailing.

Research Design
Descriptive Research

Data Collection
Primary Data: Survey
Secondary Data: Websites, books and journals
Sample Design
Population: Consumers of Varanasi
Sample Size: 200
Sampling Technique: Convenience sampling technique
Data Analysis and Design: Representation by bar charts

**Data Analysis and its Interpretation**

1. Availability of wider range product

![Bar chart showing comparison between organized retailers and pet retailers.

Mean for organized retailers: 4.176
Mean for pet retailers: 3.032
Interpretation: Consumers agreed that organized retailers keep a wider product range whereas pet retailers are indifferent to keep a wider product range.

2. Choice of more brands

![Bar chart showing comparison between organized retailers and pet retailers.

Mean for organized retailers: 4.261
Mean for pet retailers: 3.211
Interpretation: Consumers are agreed that organized retailers have variety of brand choices whereas they are indifferent for pet retailers

3. Choice of more variants

Mean for organized retailers: 4.231
Mean for pet retailers: 2.871
Interpretation: Majority of consumers agreed that organized retailers keep more variants of the products while their perception is indifferent for pet retailers.

4. Better product quality

Mean for organized retailers: 4.523
Mean for pet retailers: 3.493
Interpretation: Consumers are in between strongly agreed and agree for availability of better product quality where as they are in between indifferent and agree in case of pet retailers.

5. Fresh / New stock
Mean for organized retailers: 4.192
Mean for pet retailers: 3.265
Interpretation: Consumers agree that they get fresh/new stock in organized retail while they are still indifferent in pet retail.

6. Certainty for availability

Mean for organized retailers: 3.991
Mean for pet retailers: 3.225
Interpretation: Consumers are almost agreed that there is certainty for availability of products in organized retail where as they are more than indifferent in case of pet retail.

7. Best price availability
Mean for organized retailers: 3.995
Mean for pet retailers: 2.963
Interpretation: Consumers are in agreement that organized retail outlet provide best price availability. Consumers are almost indifferent for best price availability in pet retail outlet.

8. Better customer service

Mean for organized retailers: 4.0217
Mean for pet retailers: 2.995
Interpretation: Consumers are agreed that organized retail outlet provide better customers service where as consumers are indifferent with the customer service provided by pet retailers.

9. Closer to my house
Mean for organized retailers: 2.583  
Mean for pet retailers: 4.352  
Interpretation: Consumers are almost disagreed for not having organized retail close to their houses whereas they conveniently get pet retail shop nearby their houses.

10. Proximity to the place of work

Mean for organized retail: 2.218  
Mean for pet retail: 4.092  
Interpretation: Consumers agreed that they get pet retail shop nearby their workplace but their response is negative for organized retail.

11. Easy to access
Mean for organized retailers: 2.653  
Mean for pet retailers: 4.357  
Interpretation: Organized retails are not easy to access as felt by consumers but they find comfortable in accessing to pet retail outlets.

12. Variety of payment modes

Mean for organized retailers: 4.386  
Mean for pet retailers: 2.425  
Interpretation: Consumers are in agreement that organized retailers provide various modes of payment facility while pet retailers don’t provide different types of payment modes.

Findings

(1) Majority of consumers are in favors of opening more numbers of organized retail outlets.

(2) Consumers’ perception is that organized retailers have good stock of wider product range where as pet retailers don’t keep wider product ranges.

(3) Consumers get more brands of every product in organized retail outlets than to that of pet retail shops.
(4) Consumers are almost very satisfied with the product quality availed by organized retailers than to that of pet retailers.

(5) Consumers are in agreement that organized retailers provide fresh/new products but indifferent in case of pet retailers.

(6) Certainty for availability of particular is higher in organized retail outlets.

(7) Customer services in organized retail outlets are better than that of pet retail shops.

(8) Organized retailers provide number of ways of payment.

(9) Organized retail outlets are not available nearby consumer’s homes and place of work.

Suggestions
(1) Number of organized retail outlets must be increased as like pet retail shops because there are very less number of organized retail outlets available for such a huge population.

(2) Organized retail outlets should be opened in proximity of the consumer’s homes so that consumers don’t find difficulty in going to the organized outlets as like local shops which are available at each and every nook and corner of consumer’s locality.

(3) Pet retailers should provide various modes of payment facility to the consumers as like organized retailers. Organized retailers provide different modes of payment like plastic cards, credit cards etc.

(4) Pet retailers must strengthen their supply chain for reducing extra cost and for smooth and regular supply of the materials as carried out by organized retailers.

(5) Pet retail shops must keep variety of product ranges and brands as well as more variants of the products as like organized retail outlets because there are different types of people with different needs in the society. Pet shops must focus on satisfying every person of the society. With the inclination of people towards organized retail outlets it has become imperative for local retailers to brace up to compete with organized retailers.

(6) Pet retail shops must work on enhancing the customer services to provide optimum satisfaction to consumers. Organized retailers are given training for how to deal with customers and focus on their changing needs and wants. Organized retailers are more focused towards satisfying customers through providing better customer services.

Limitations
(1) The validity of research depends upon the responses given by respondents.

(2) Constraint of time and resources limited the scope of study.
(3) The research is conducted in Varanasi; the perception of consumers may or may not be same at other places.

(4) There is lack of awareness about SCM among the consumers.

(5) The study may have been distorted by unavoidable errors in sampling measurement.

References


