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Role of strategic sourcing for supply chain efficiency and responsiveness in organized retail sector

Sushma Patil* and C. R Chavan**

*Assistant Professor, Bharati Vidyapeeth Institute of Management Studies, Navi Mumbai

**Director, Jammalal Bajaj Institute of Management Studies University of Mumbai

Corresponding author: Sushma Patil

Abstract

In India for a long time the corner grocery store was the only choice available to the consumers. With the increasing demand of the customers spurred by changing trends, aspiring needs for variety, the traditional retail gave rise to modern retail format. The traditional food and grocery segment has seen the emergence of supermarkets/grocery chains, convenience stores and hypermarkets. Due to globalization, the retail industry has been expanding its operation beyond the borders. To increase the efficiency and effectiveness of service, retailers have to collaborate with all the parties concerned and coordinate all the processes in their supply chain. The main objective for a retail company is to provide service to the final customer, but at the same time minimize the cost. The most efficient Supply chain is the one that has the lowest possible cost and at the same time meet the customer's expectations on service like delivery precision and lead-time. i.e. supply chain responsiveness. To realize these objectives, all strategic partners must recognize that the purchasing function, with its boundary-spanning activities, is a crucial link between the sources of supply and the organization itself. Purchasing/sourcing connects suppliers and buyers closely, which are two of the driving forces of competitiveness in an industry. Therefore in this research paper an attempt has been made to study the role of strategic sourcing for supply chain efficiency and responsiveness in organized retail sector in a city of Mumbai and Navi Mumbai. For that 85 Retail professionals are selected by non-probabilistic Convenience sampling method. By applying statistical techniques to the data collected, it is found that factors of strategic sourcing like number of suppliers, frequency of communication with the suppliers, factors of selection of suppliers are having positive impact on supply chain efficiency and responsiveness.

Keywords: supply chain efficiency, responsiveness, organized retail sector, Strategic Sourcing

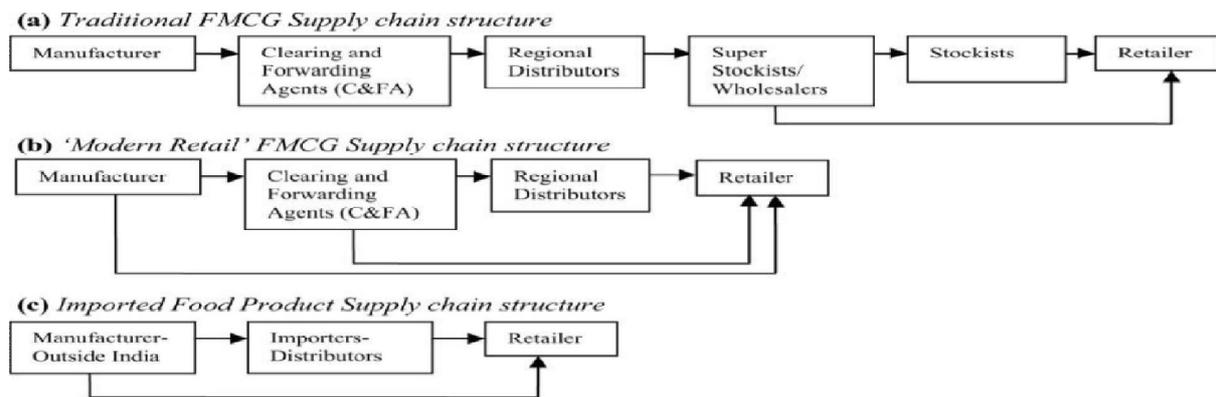
Introduction

The Indian retail industry has emerged as one of the most dynamic and fast-paced industries due to the entry of several new players. It accounts for over 10 per cent of the country's Gross Domestic Product (GDP) and around 8 per cent of the employment. India is the world's fifth-largest global destination in the retail space. India's retail market is expected to nearly double to US\$ 1 trillion by 2020 from US\$ 600 billion in 2015, driven by income growth, urbanisation and attitudinal shifts. While the overall retail market is expected to grow at 12 per cent per annum, modern trade would expand twice as fast at 20 per cent per annum and traditional trade at 10 per cent (IBEF Report). In India for a long time the corner grocery store was the only choice available to the consumers. With the increasing demand of the customers spurred by changing trends, aspiring needs for variety, the traditional retail gave rise to modern retail format. The traditional food and grocery segment has seen the emergence of supermarkets/grocery chains, convenience stores and hypermarkets. The Indian retail industry on the whole is divided into organized and unorganized sectors. Unorganized/Traditional retailing refers to the traditional formats of low-cost retailing, for example, the local kirana shops, owner manned general stores paan/beedi shops, convenience stores, hand cart and pavement vendors, etc. Organized retailing refers to trading activities undertaken by licensed retailers, that is, those

who are registered for sales tax, income tax, etc. These include the corporate –backed hyper markets and retail chains, and also the privately owned large retail businesses. Organized retailing comprises mainly of modern retailing with busy shopping malls, multi stored malls and huge complexes that offer a large variety of products in terms of quality, value for money and makes shopping a memorable experience.

Retail supply chain in India

Supply chain is the vital part of Indian retail sector. Traditionally it was comprised of number of channel members vertically and horizontally. Due to evolution in Modern retail supply chain intermediaries have been reduced. A typical structure of Indian retail supply chain is as follows:



With the enormous growth the retail sector is also facing challenges on the fronts of escalating real estate cost, scarcity of skilled workforce and structured supply of merchandise. One of the most important challenges in organized retail in India is poor supply chain and logistics management. The importance can be understood by the fact that logistics management cost component is as high as 7% to 10% against the global average of 4% to 5% on the total retail price. Therefore the margins in retail sector can be improved by 3% to 5% by just improving supply chain and logistics management. Moreover, the customers are receiving more information about product and they are more particular about brand, product features and price. For this retailers have to stock all product categories to satisfy customers. Due to globalization, the retail industry has been expanding its operation beyond the borders. To increase the efficiency and effectiveness of service, retailers have to collaborate with all the parties concerned and coordinate all the processes in their supply chain. The proper supply chain management is expected to bring benefits like improved inventory management, better planning and forecasting and thereby reducing and providing to the consumers and tiers a better deal and satisfaction.

Efficiency and Responsiveness in retail supply chain

The traditional objective of Supply Chain Management is according to Shapiro (2001) to minimize the total Supply Chain Cost and to meet the given demand. Cutting costs in the Supply chain most likely affect the performance like for example delivery precision and lead-time. It is easier to get a short lead-time by having buffers, but buffers cost and therefore the Supply Chain Cost is increasing. Segerstedt (1999) writes profitability is achieved by the difficult balancing of facility utilisation (high), capital and inventory investments (low) and market services (high). The challenge for a company is to combine the *cost* (establish high facility utilisation, low capital investments) and *performance* (short delivery times, high delivery precision, satisfied customers, short lead times, short days of inventory) and optimise both of them to get the best result for the company. The main objective for a company is to provide service to the final customer, but at the same time minimize the cost. The most efficient Supply chain is the one that has the lowest possible cost and at the same time meet the customer's expectations on service like delivery precision and lead-time.

Role of Strategic Sourcing in Organized retail supply chain

Most retailers have significant savings opportunities in trimming product—and non-product—sourcing spend. While product sourcing costs can be as high as 60% to 70% of sales, non-product sourcing costs (e.g., real estate, fixtures, professional services, marketing and advertising) can be a significant source of savings as well. Kurt Salmon Associates estimates that most retailers can realize between a 2% and 4% reduction in COGS through an aggressive strategic sourcing program

centered on negotiating more favourable agreements and improving collaboration with vendors. Benefits can be higher depending on the retailer's sourcing capabilities and willingness to pursue product- and vendor-related savings. But ultimately, for all retailers, minimizing costs across the entire sourcing spend spectrum requires a broad set of capabilities, flexible processes and renewed negotiations with vendor. According to Gunasekaran, Patel and McGaughey (2004), at the strategic level, SCM is a relatively new and rapidly expanding discipline that is transforming the way for improving organizational competitiveness both in manufacturing and services. The short-term objective of SCM is to increase productivity and reduce inventory and cycle time, while the long-term strategic goal is to increase customer satisfaction, market share and profits for all members of the virtual organization (Tan, 2002; Wisner and Tan, 2000). To realize these objectives, all strategic partners must recognize that the purchasing function, with its boundary-spanning activities, is a crucial link between the sources of supply and the organization itself (Wisner and Tan, 2000). Purchasing/sourcing connects suppliers and buyers closely, which are two of the driving forces of competitiveness in an industry (Porter, 1980).

Walmart's approach to Strategic Sourcing

In 2010, Walmart announced a big change in their sourcing strategy. They saved billions of dollars by consolidating their global procurement functions and reducing the use of intermediaries in their sourcing process. Till 2010, Walmart which is world's largest importer, relied on intermediaries for bulk of its global sourcing activities, instead of buying it directly from the offshore suppliers. They bought hardly 20% of goods directly from the suppliers. Also the mode of operation was highly decentralized across all the 15 countries where it has its stores. Eduardo Castro-Wright, the then Vice President of Walmart set a goal for the company to change its sourcing strategy in order to buy 80% of the goods from the manufacturers directly. Also he planned to make the global sourcing process more centralized. By doing this, he intended to eliminate the middlemen in the transaction, thereby avoiding the 5-15% mark-up introduced by them. The elimination of the mark-up introduced by the middlemen, helped reduce the cost leading to billions of dollars of savings for Walmart. To start with, this strategy was implemented for merchandising. They centralized the process by setting up four global merchandising centres for general goods and clothing. Following this they started purchasing fruits and vegetables on a global scale and eliminated the import companies and the agents. One of the milestones in implementing the change in Walmart's sourcing strategy was the acquisition of Asda, the grocery chain in UK by Walmart. Asda had expertise in direct sourcing and Walmart leveraged this expertise across the globe. This strategy of direct sourcing not only helped Walmart reduce the cost, but also helped in other supply chain activities by improving the efficiency throughout the process. They could now better manage and consolidate the incoming shipments and also gained a better visibility through the entire product lifecycle.

Some of the sourcing strategies that worked for Walmart:

Strategic Vendor Partnerships

Walmart selected the suppliers, who could meet the demand and at the same time offer them the best price for the goods. They then developed strategic relationships with these vendors, by offering them long term and high volume purchases in exchange for lowest possible prices. Furthermore, Walmart constructed communication and relationship networks with their suppliers to improve the material flow. Collaboration was the key to their success.

Cross Docking

Walmart's sourcing strategy is centred on a key inventory tactic called Cross docking. It transfers products directly from inbound trucks to outbound trucks. This saves the storage costs. Suppliers deliver products to Walmart's distribution centers, where those are cross docked and then delivered to the Walmart stores. This process of cross docking lowers the inventory transportation costs and eliminates inefficiencies. This results in savings for the company which are then passed on to the customers in the form of competitive prices.

Technology

Walmart embraced technology to track its inventory and restock the shelves. Technology plays an important role in Walmart's supply chain. It helps them accurately forecast demand, track inventory and manage customer relationships and service response logistics. They were the first ones to implement the bar codes through which store level information was collected and analysed easily.

Literature review

Arif Khan and Rajesh K. Pillania (2008) studied the criticality of strategic sourcing and supply chain agility and its positive association/impact on the organizational performance in the context of manufacturing companies. Their study provided measurement scales for strategic sourcing, supply chain agility, strategic supplier partnership, flexibility in sourcing, supplier evaluation, trust in supply chain and organizational performance.

The results of Vonderembse and Tracey (1999) indicate managers should focus on a set of supplier selection criteria that evaluates suppliers across multiple dimensions including product quality, product performance, and delivery reliability. Effective evaluation and selection of suppliers is considered to be one of the critical responsibilities of purchasing/sourcing managers. The evaluation process often involves the simultaneous consideration of several important supplier performance attributes that include price, delivery lead time, and quality.

Tracey and Tan (2001) employed confirmatory factor analysis and path analysis to examine empirically the relationship among supplier selection criteria, supplier involvement, each of the four dimensions of customer satisfaction (competitive pricing, product quality, product variety, and delivery service), and overall firm performance. This research confirms that higher levels of customer satisfaction and firm performance result from selecting and evaluating suppliers based on their ability to provide quality components and subassemblies, reliable delivery, and product performance. It finds no evidence that selecting suppliers based on unit price has a positive impact on customer satisfaction or firm performance.

Carr and Smeltzer (2000) presented a regression model of the relationships among purchasing skills and strategic purchasing, a firm's performance, and supplier responsiveness to test three hypotheses to determine if purchasing skills are related to strategic purchasing, a firm's financial performance, and supplier responsiveness. A regression analysis of sample of 85 surveys indicates that purchasing skills are related to strategic purchasing, a firm's financial performance, and supplier responsiveness.

Carr and Pearson (2002) offered a model of the hypothesized relationships concerning purchasing/supplier involvement, strategic purchasing and firm's financial performance. The model is tested using a survey method and random sample of purchasing executives across various industries which are included in the National Association of Purchasing Management (NAPM) membership database. The model is empirically tested using structural equation modeling and the findings reveal that the hypotheses tested in the model are supported. Strategic purchasing has a positive impact on firm's financial performance.

So by referring the literature review, in this research paper an attempt is made to give role of strategic Sourcing in supply chain efficiency and responsiveness in organized retail sector in a city of Mumbai and Navi Mumbai.

The objectives for the study-

- 1) To study the overall organized retail market scenario in Indian context.
- 2) To study the role of strategic sourcing practices in organised retail supply chain.
- 3) To identify factors of strategic sourcing affecting supply chain efficiency.
- 4) To identify factors of strategic sourcing affecting supply chain responsiveness.

Research Methodology

Research Design

The study is **Exploratory, Descriptive and Causal in nature**. The **Exploratory** study of research is used to identify the various factors affecting the supply chain management with respect to strategic sourcing in selected retail outlets in Mumbai and Navi Mumbai. **Descriptive** study is used in analysing the various factors of strategic sourcing for effective supply chain management. **Causal** study is used in studying the impact of various attributes of strategic sourcing and supply chain efficiency and responsiveness.

Sample size –From the universe of organized retail outlets (Supermarket group) in Mumbai and Navi Mumbai 85 supermarkets having total square feet area above 500 sq.ft. are selected across all four zones of Mumbai and Navi Mumbai. The sampling method used for the study is non probabilistic convenience sampling method.

Hypotheses of the study

- 1)** H1-
There is a significant impact of number of suppliers used on lead time of logistic network.
- 2)** H2-
There is significant impact of number of suppliers used on availability of goods which are demanded.
- 3)** H3-
There is significant impact of frequency of communication with the suppliers on availability of newly launched goods.

Data collection method

In the stage of primary data collection the store managers from total 85 supermarkets' are being interviewed by taking prior appointment .All items for efficiency and responsiveness were measured on scales with response option ranging from 1 (No Impact) to 5 (Very strong Impact). Various Research papers, articles, dissertations, Reference books are used for secondary sources of data collection

Limitations of the study

The research is being carried out in city of Mumbai and Navi Mumbai so results cannot be generalised. The study covers supply chain practices of supermarket group in FMCG category. For in depth analysis the selection was made but further study can be carried on other formats of retail industry like hypermarkets, Departmental stores etc. and even in other categories also.

Data Results

Primary data of selected supermarkets' supply chain practices is analysed as follows:

- 1) From table 1 -56%of the retailers (Supermarket owners) have Distributor or stockist as supplier, 36.5% have Direct manufacturers as suppliers and only 7.1% have wholesaler as suppliers.
- 2) From Table 2 -70.6% of retailers have centralized and 29.4% have decentralized warehouses.
- 3) From Table 3-Around 54.1% of retailers have up to 10 suppliers and remaining 45.9% of retailers have 10-30 number of suppliers.
- 4) FromTable 4-There is no Provision of any type of training to suppliers of organized retailers.
- 5) From Table5-Maximum frequency of communication with the supplier is weekly (47.1%) followed by daily (36.5%) and then monthly (16.5%)
- 6) From Table 6Quality of good supplied is the maximum preferred factor (40%) for supplier selection over Service (35.3%) followed by Price (22.4%) and Flexibility (2.4%)
- 7) From Table 7,
New Product introduction information is provided sometimes only at maximum rate (44.7%).

8) H1-Numer of suppliers is having significant impact on lead time.

From Table 8 of Chi-Square Test,

As p value is less than 0.05, H1 is accepted. It means number of suppliers is having significant impact on lead time of logistic network. Retailers having less but reliable suppliers are found to have very high impact on lead time. Lead time is a major indicator of supply chain efficiency.

9) H2-There is significant impact of number of suppliers on availability of goods which are demanded.

From Table 9 of Chi-square Test,

As p value is less than 0.05, H2 is accepted. It means number of suppliers is having significant impact on availability of goods which are demanded. Retailers having less but reliable suppliers are found to have very high impact on availability of goods. Availability of goods which are demanded is an indicator of supply chain responsiveness.

10) H3-There is significant impact of frequency of communication with the suppliers on availability of newly launched goods.

From Table 10 of Chi-Square Tests,

As p value is less than 0.05, H1 is accepted. It means there is significant impact of frequency of communication with suppliers on availability of newly launched goods. Retailers having frequency of weekly communication with the suppliers are found to have very high impact on availability of newly launched goods. Availability of newly launched goods at proper time is again strong indicator of supply chain responsiveness.

Discussion on results

- 1) Strategic sourcing is also found to be prominent factor which is affecting supply chain efficiency and responsiveness. From the findings it shows that retailers always prefer suppliers who are providing quality delivery at an affordable price.
- 2) Number of suppliers, type of suppliers, and frequency of communication with the suppliers are some of the variables of strategic sourcing efficiency and responsiveness. Number of suppliers of strategic sourcing directly affects the lead time factor of supply chain efficiency. It is found that few but reliable suppliers (up to 10) are able to deliver the goods in minimum time as compared to more suppliers. Lead time of the supply chain is a major indicator of supply chain efficiency.
- 3) Similarly it is found that few but reliable suppliers are also affecting supply chain responsiveness by showing high impact on availability of goods which are demanded which shows supply chain responsiveness.
- 4) Frequency of communication with the suppliers also affects supply chain responsiveness. From the results it shows that weekly communication with suppliers is having high impact on availability of newly launched goods than monthly or daily communication.
- 5) Training to the suppliers, performance appraisal of suppliers, regular joint meeting with the suppliers are found to be the missing factors in strategic sourcing from the collected data.

Conclusion

Strategic Sourcing is an important driver for retail supply chain. Strategic sourcing can impact a firm's competitiveness of low cost, high quality, reliable delivery, flexibility, and quick response time, which are also major dimensions of customer satisfaction. Organised retailers should select few but reliable suppliers who will ensure quality delivery on time and at affordable cost. There should be frequent communication between retailers and suppliers. Thus Strategic sourcing is recognized as a key contributor to firm's success strategic and supplier selection have been recognized as key decisions in firm's decision making process. Strategic sourcing and supplier selection are two key drivers of buying firm's competitive priorities and further lead to firm's financial performance.

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*Annexure***Table 1. Major suppliers -Direct Manufacturers, Distributor / Stockiest, Wholesaler.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Direct Manufacturer	31	36.5	36.5	36.5
	Stockist	48	56.5	56.5	92.9
	Wholesaler	6	7.1	7.1	100.0
	Total	85	100.0	100.0	

Table 2 . Warehouses - Centralized/Decentralized

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Centralized	60	70.6	70.6	70.6
	Decentralized	25	29.4	29.4	100.0
	Total	85	100.0	100.0	

Table 3.No. of suppliers your organization source from

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Up to 10	46	54.1	54.1	54.1
	10-30	39	45.9	45.9	100.0
	Total	85	100.0	100.0	

Table 4.Provision of any type of training to your suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	85	100.0	100.0	100.0

Table 5.Frequency of communication with the suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	31	36.5	36.5	36.5
	Weekly	40	47.1	47.1	83.5
	Monthly	14	16.5	16.5	100.0
	Total	85	100.0	100.0	

Table 6.factors considered for strategic sourcing-

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quality	34	40.0	40.0	40.0
	Service	30	35.3	35.3	75.3
	Price	19	22.4	22.4	97.6
	Flexibility	2	2.4	2.4	100.0
	Total	85	100.0	100.0	

Table 7. Provision of information on new product introduction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	5	5.9	5.9	5.9
	Occasionally	5	5.9	5.9	11.8
	Sometimes	38	44.7	44.7	56.5
	Mostly	31	36.5	36.5	92.9
	Always	6	7.1	7.1	100.0
	Total	85	100.0	100.0	

Table 8 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	12.321 ^a	1	.000		
Continuity Correction ^b	10.803	1	.001		
Likelihood Ratio	12.580	1	.000		
Fisher's Exact Test				.001	.000
Linear-by-Linear Association	12.176	1	.000		
N of Valid Cases	85				

Table 9 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.309 ^a	3	.040
Likelihood Ratio	8.431	3	.038
Linear-by-Linear Association	6.154	1	.013
N of Valid Cases	85		

Table 10 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.894 ^a	6	.001
Likelihood Ratio	24.506	6	.000
Linear-by-Linear Association	8.981	1	.003
N of Valid Cases	85		