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A Study on Supply Chain Management in Organized Retailing

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Introduction

Customer is considered king in the market who dictates the market and makes the enterprise run. Today, what customer wants is better products, lower prices and faster supplies of goods and services. These enhance the customer delight and enterprise plight. Meeting customer's wants have never been simple especially in a competitive market. Marketers have been engaged in evolving devices to gain competitive advantage that enables them to satisfy the customer's wants and stay and survive in market. In fact, innovate and invent have become, of late, the new mantras in modern marketing to possess competitive advantage especially in a highly competitive market. Earlier logistics was used as one of the devices to gain competitive advantage in the market. Of late, there has been a paradigm shift from logistics to its modem day avatar, better known as Supply Chain Management (SCM) which has been discovered as a source of competitive advantage.

Changing social trends in India are fueling the growth of retailing in the country. The Information and Comunnication Technology (ICT) revolutions, double income families where husband and wife both are working and more and more Indian women are now moving into education and jobs, packaged food, ready to cook food and shopping convenience in organized retail ambience under one roof would be the increasingly replacing the corner kirana shop / traditional grocery shop shopping. All this has increasingly affected the shopping pattern that is moving towards fulfilling the need of convenience shopping in the form of Supermarkets (now graduating to Hyper format) home deliveries. Indian consumer is quality and price conscious and this awareness would drive the retailers to rework their supply chain relationships which traditionally comprised several layers such as the national distributor, the regional C&F, wholesaler and the end retailer. However this scenario is fast changing with the organized retail increasing its presence in the country where the relationship is directly with the manufacturer. This new model has been affecting the relationships that the manufacturer enjoys with the traditional system which is still the most dominant in the entire retail sector.

The Indian consumer is changing rapidly. The average consumer today is richer, younger and more inspirational in his/her needs than ever before. Consumers now value convenience and choice at par with getting value for their hard-earned money. A range of modern retailers are attempting to serve the needs of the 'new' Indian consumer. The last few years have witnessed an explosion of organized retail formats like supermarkets and hypermarkets in an otherwise fragmented Indian retail market. To tap this growth opportunity, Indian retail organizations need to be prepared for a quick scale up across dimensions of people, processes and technology in addition to identifying the right formats and value proposition for the Indian consumer.

Retail is India's largest industry accounting for over 10 percent of the country's GDP and around eight percent of the employment. The $200 billion Indian retail market has been growing at 5 percent annually in real terms. This growth is expected to continue. A combination of increased consumer demand, improved sourcing options and larger availability of real estate are creating the foundation for a significant growth in the organized retail sector. It has emerged as one of the most dynamic and fast paced industries with several players entering the market. In order to reap the benefit of growing economy more and more, corporate houses including large real estate companies are coming into the retail business, directly or indirectly, in the form of mall and shopping center builders and managers. Large organized and professional Department stores, Supermarkets and discount superstores -- are set to take over the retail scene

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and have already made an appearance and are slowly changing the face of retailing in the country.

The urban Indian retail sector has traditionally been structured around three small retail entities -- the grocer, the general store and the chemist. The grocer stocks non-packaged, unbranded commodities such as rice, flour, and pulses, as well as branded fast-moving consumer goods (FMCGs); the general store stocks only branded, packaged FMCGs. The chemist, apart from dispensing pharmaceutical products, sells branded FMCGs such as personal care products, and health foods. Alongside the three retail outfits, exists a large segment of smaller, unorganized players -- paan-beedi stores (or cigarette kiosks) which stock products in sachets, batteries, confectionery and soaps; bakeries and confectioners; fruit juice/tea stalls; ice-cream parlors; electrical and hardware stores; and non-food boutiques. These retail outfits stock branded FMCGs. These apart, there are the hawkers, carts and stalls that dot sidewalks and street corners, and several door-to-door sellers such as vegetable vendors. According to the global consulting group, A. T. Kearney India Ltd, there are over five million such small retail outlets in India. Paanwalas and kiranawallas, street hawkers present everywhere are the various firms operating hither and thither; and meeting the basic needs of the general public and earning livelihood. They account for nearly 95 percent of the total retail turnover in the country and their number continues to grow.

The international consulting firm, A.T. Kearney, annually ranks emerging market economies based on more than 25 macroeconomic and retail-specific variables through their Global Retail Development Index (GRDI). For the last three years (2005, 2006, and 2007) India has been ranked as number one indicating that the country is the most attractive market for global retailers to enter. The high economic growth during the last few years raising disposable incomes rapidly, favorable demographics placing incomes on younger population with less dependency, and urbanization are some of the major factors fueling the Indian retail market. Most of the organized retailing in India had recently started and was mainly concentrated in metropolitan cities.

Eighty five percent of organized retailing is taking place in India's urban areas while 66 percent of it taking place in India's 6 main cities alone. The growth is much faster in south India than in northern states. The total retail market in south India is $94 billion and of this organized retail is $8.5 billion. In southern part of India, the organized retail market growth is estimated at 35 percent per annum. In Chennai the growth rate is 12 percent while in Hyderabad it is 7 percent and in Kerala it is 3-4 percent per annum. As per Technopak study the sales in the organized sector for food, beverage and tobacco is $195 billion which cover 65 percent. Sale of personal care product is $15 billion (5 percent) and apparel at 7 percent around $21 billion.

Rationale of Study

There are many theories and empirical studies on competitive advantage. However, the empirical studies in retail management using mathematical models, tend to be limited in scope and do not include supply chain management parameters and practices. While there has been much research on activities that can provide competitive advantage, there is little knowledge on the process of selection and impact of supply chain management on the competitive position and business performance in retailing firms. Firms need to understand how supply chain management can help them achieve competitive advantage.

Why Supply Chain Management in Organized Retailing?

In the organized retail market in India the role of supply chain is very important as the Indian customer demands affordable prices and a variety of product mix. It is the supply chain that ensures to the customer in all the various offerings that a company decides for its customers, be it cost, service, or the quickness in responding to ever changing tastes of the customer.

One of the most important challenge in organized retail in India is faced by poor supply chain and logistics management. The importance can be understood by the fact that the logistics management cost component in India is as high as 7% -10% against the global average of 4% - 5%

of the total retail price. Therefore, the margins in the retail sector can be improved by 3% - 5% by just improving the supply chain and logistics management.

The efficiency and effectiveness of supply chain and logistics management can also be understood by the fact that modern retail stores maintain lower inventories than traditional retail. In India, generally in the traditional kirana stores, three weeks inventories are kept; while in a modern retail store like Hyper city, it's nine days and it's under two weeks for Food Bazaar. Now, it is beneficial for both the manufacturer as well as the retailer. If we go through the food supply chain in India, we find that a lot can be improved by maintaining the supply chain and logistics.

As Supply Chain Management involves procuring the right inputs (raw materials, components and capital equipments); converting them efficiently into finished products and dispatching them to the final destinations; there is a need to study as to how the company's suppliers obtain their inputs. The supply chain perspective can help the retailers identify superior suppliers and distributors and help them improve productivity, which ultimately brings down the costs. At the same time, Market logistics helps planning the infrastructure to meet demand, then implementing and controlling the physical flows of material and final goods from point of origin to points of use, to meet customer requirements at a profit.

The nature of retail sector in India is different from other countries around the world. The organized retail sector in India is highly fragmented and there are huge inefficiencies in the supply chain. The most important part of retailing business is to find a balance between investing in front-end and back-end operations. The channel dynamics is going to change over next couple of years as the retailers start growing in size and their bargaining power is likely to increase. Probably that would bring some kind of mutual understanding between manufactures and retailers to develop strong supply chain network. In such a scenario, both the existing operators and new operators must put collaborative efforts to phase out inefficiencies in the supply chain network.

The challenges that a retail organization faces are many like: huge stock-keeping units (SKUs), seasonal variations of product lines necessitating the introduction of new SKUs, complex tax structures, the sheer geographic spread of the country, changing consumer demands, etc. This level of efficiency calls for retail automation and integrated supply chain management on the part of retailer and a retail organization has to plan to make this system work properly and try to satisfy the needs of every customer without fail.

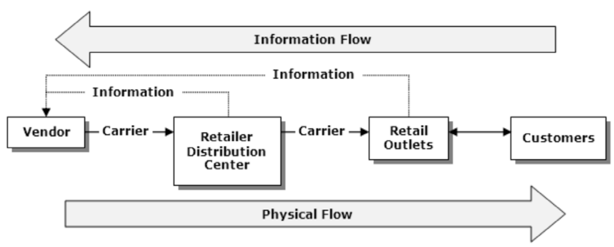
A retail supply chain consists of vendors that supply various products (Exhibit 1.1).

Vendors supply products to their retail customer's distribution centers as well as operate their own network of distribution centers. Retail supply chains vary in complexity, and this structure can include any number of manufacturers, vendors, distribution centers, and retail locations.

In between each entity, various carriers are used to transport these goods. Depending on the agreement between the different partners in the supply chain, the inventory ownership and ownership transfer varies. For most traditional supplier and retailer relationships, the suppliers relinquish ownership once the supplies reach the retailer's distribution center.

Along with the physical product flow, there is also an information flow between supply chain partners. Depending on the technology and collaboration efforts between partners, information flow can be extensive or limited. The type of information shared between partners could include point of sale data or forecasts over a certain period of time. Suppliers and retailers that collaborate extensively share inventory status data as well.

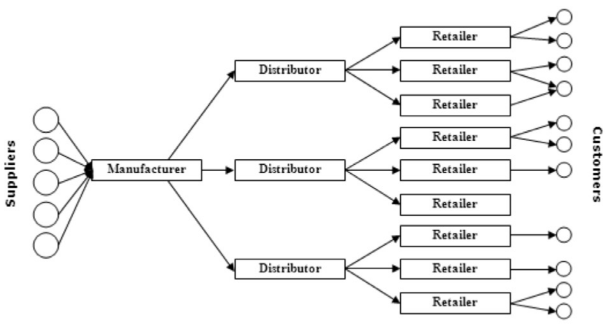
Exhibit 1.1 Traditional Retail Supply Chain Structure



(Source: Modified from Ellram, La Londe and Weber, 1999)

In a real world supply chain, the structure becomes more complex, and more parties' involvement significantly increases the difficulty of managing the supply chain.

Encompassed with these definitions, we can identify three degrees of supply chain complexity: a "direct supply chain," an "extended supply chain," and an "ultimate supply chain." A direct supply chain consists of a company, a supplier, and a customer involved in the upstream and/or downstream flows of products, services, finances, and/or information (Exhibit 1.3-A). An extended supply chain includes suppliers of the immediate supplier and customers of the immediate customer, all involved in the upstream and/or downstream flows of products, services, finances, and/or information (Exhibit 1.3-B). An ultimate supply chain includes all the



organizations involved in all the upstream and downstream flows of products, services, finances, and information from the ultimate supplier to the ultimate customer.

Exhibit 1.2 A Real World Supply Chain Structure

Exhibit 1.3-C illustrates the complexity that ultimate supply chains can reach. In this example, a third party financial provider may be providing financing, assuming some of the risk, and offering financial advice; a third party logistics (3PL) provider is performing the logistics activities between two of the companies; and a market research firm is providing information about the ultimate customer to a company well back up the supply chain. This very briefly illustrates some of the many functions that complex supply chains can and do perform.

Given the potential for countless alternative supply chain configurations, it is important to note that any one organization especially in retailing can be part of numerous supply chains. Wal-Mart, for example, can be part of the supply chain for candy, for clothing, for hardware, and for many other products. This multiple supply chain phenomenon begins to explain the network nature that many supply chains possess. For example, AT&T might find Motorola to be a customer in one supply chain, a partner in another, a supplier in a third, and a competitor in still a fourth supply chain.

Despite the popularity of the term Supply Chain Management, both in academia and practice, there remains considerable confusion as to its meaning. Some authors define SCM in operational terms involving the flow of materials and products, some view it as a management philosophy, and some view it in terms of a management process (Tyndall et al. 1998). Authors have even conceptualized SCM differently within the same article: as a form of integrated system between vertical integration and separate identities on one hand, and as a management philosophy on the other hand (Cooper and Ellram 1993).

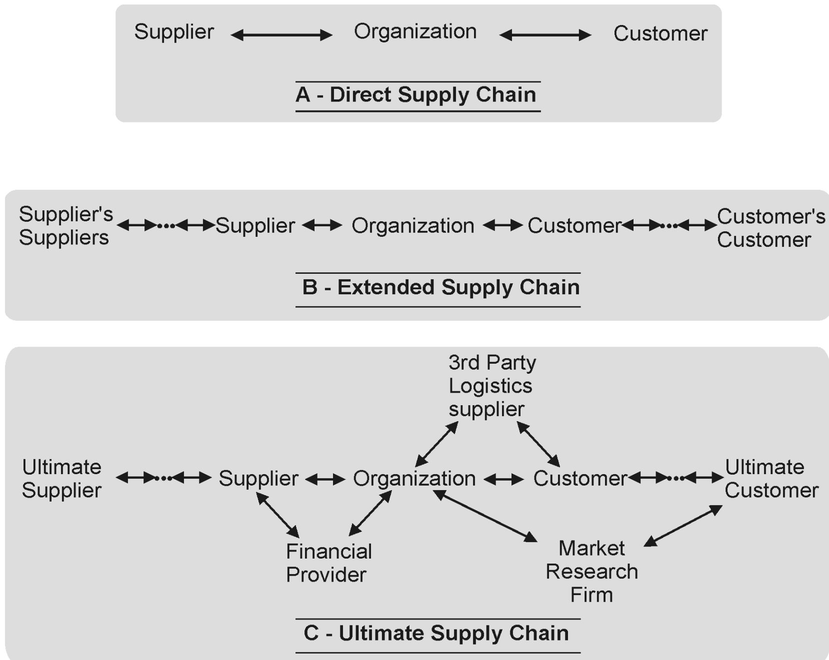
Supply chain management involves coordinating and integrating flows both within and among companies. It is said that the ultimate goal of any effective supply chain management system is to reduce inventory (with the assumption that products are available when needed). The central aim of supply chain management is thus is to have the right products in the right quantities (at the right place) at the right moment at minimal cost circumventing upon the interrelated issues of customer satisfaction, inventory management, and flexibility.

The Retail Industry in India

The emergence of organized retail has been a recent phenomenon in the country, starting in the late 1990s. Its growth till 2006-07 was reasonably fast, at nearly 20 per cent per annum during the past three years. Unorganized retail also grew but at a slower pace of nearly 11 per cent per annum. There are signs that the growth of organized retail has accelerated in 2007-08 and is expected to gather further momentum during the coming years.

The NCAER, based on its Market Information Survey of Households (MISH), has projected that

Exhibit 1.3 Types of Channel Relationships



the consuming class consisting of the "aspirers", the middle class and the rich with annual household income of above Rs. 90,000 will rise from about 336 million in 2005-06 to 505 million in 2009-10. This implies a huge growth potential of retail in the country. The sales of the Indian retail industry have been about US$ 322 billion (Rs. 14,574 billion) in 2006-07, amounting to about 35 per cent of India's GDP. It is the seventh largest retail market in the world. Indian retail industry is projected to grow to about US$ 590 billion by 2011-12 and further to over US$ 1 trillion by 2016-17.

Size of Indian Retail (in US$ bn)

Year	Revenue (in US$ billions)
2006-07	322
2011-12	590
2016-17	1011

Source: Technopak Analysis

This works out to an annual compound growth rate of about 13 per cent during 2007-12 and a slower 11 per cent during 2012-17.

In India, organized retail contributed roughly 4 per cent of the total Indian retail in 2006-07, which is very small even compared with most of the emerging market economies. However, during the coming years, it is projected to grow at a compound rate of about 45-50 per cent per annum and is estimated to contribute 16 per cent to the total Indian retail by 2011-12.

Projection of the Share of Organized Retail

Year	Organized Retail	Unorganized Retail	Total Retail (in US$billions)
2006-07	4%	16%	322
2011-12	96%	84%	590

Source: Technopak Analysis

Interestingly, this huge growth in organized retail does not involve a decline in the business of unorganized retail; the sales of the unorganized sector is envisaged to grow by about 10 per cent per annum, from US$ 308.8 billion in 2006-07 to US$ 495.6 billion in 2011-12.

Organized Retail Investment

Until a couple of years ago, the Indian organized retail market was either dominated by the apparel brands or regional retail chains. However, the scenario has changed dramatically. The sector has attracted not only the large Indian corporates, but also, received the attention of large global players.

As per the estimate made by Technopak Advisers Pvt. Ltd. investments amounting to approximately US$ 35 billion are being planned for the next five years in the organized retail sector. Of this, about 70 per cent is expected to come from top players including Reliance Industries, Aditya Birla Group, Bharti-Wal-Mart, Future Group and others. Also, it is estimated that about 40 per cent of the total investments will be contributed by foreign players including Wal-Mart, Metro, Auchan, Tesco and many others, signifying the importance that the international community is attaching to the Indian retail opportunity. In short, India is attempting to do in 10 years what took 25-30 years in other major markets in the world and shall bypass many stages of "evolution" of modern retail. India is likely to see the emergence of several "innovative" India-specific retail business models and retail formats during the coming years.

Urban investments are slated to be across all modern formats although the majority share will be taken by supermarkets and hypermarkets. The share of hypermarkets is expected to increase in the lower-tier cities, as a single hypermarket would be able to cater to a significant proportion of the demand in smaller cities.

Investment Estimates by Retail Format (%)

Retail Format	Investment Estimates
Supermarkets	34%
Hypermarkets	32%
Departmental stores	2%
Warehouse	9%
Other formats (includes apparel, watches, furniture and furnishing, toys, etc.)	23%

Source: Technopak Analysis

India, like Britain, is also a nation of shopkeepers. With over 12 million retail outlets, India has one of the highest densities of retail outlets in the world with one retail outlet for approximately 90 persons. No wonder India is the ninth largest retail market in the world with annual retail sales of approximately USD 215 billion in 2005. However, the share of organized trade in India is currently very low estimated at just Rs. 35,000 Crores in 2008 (Rs. 28,000 in 2004). This accounts for less than 4% of the total retail trade in the country.

Growing consumerism would be a key driver for organized retail in India. Several demographic trends are favorable for the growth of organized trade.

- **Rapid income growth:** Consumers have greater ability to spend.
- **Increasing Urbanization :** Larger urban population which values convenience coupled with higher propensity of the urban consumer to spend
- **Growing young population :** Growth of post liberalization maturing population with the willingness to spend (attitude)
- **Tendency to spend now v/s save earlier.** Consumers willing to borrow for current consumption

The organized retail market is expected to grow much faster at a CAGR of 21.8% (at constant prices) to Rs. 246,000 Cr by 2015 thereby constituting approximately 15% of the overall retail sales. Based on the projections, the top 5 organized retail categories by 2015 would be food, grocery and general merchandise, apparel, durables, food service and home improvement.

Retailers inspired by the Wal-Mart story of growth in small town America are tempted to focus on smaller towns and villages in India. However, a careful analysis of the town strata-wise population, population growth, migration trends and consumer spend analysis reveals a very different picture for India. As per the estimates, the share of the 35 towns with current population greater than 1 mn in the overall population of India would grow much faster from 10.2% today to reach 14.4% by 2025. Simultaneously, the share of these towns in the overall retail market would grow from 21% today to 40% by 2025.

Within these top 35 towns, an estimated 70-80% of trade could be in the organized sector. Hence,

Indian Retail Market: Population Estimates and Retail Proportion

City Category	Population (in Rs. Cr.)		Proportion of Total Retail Market (in %)			
	2001	2025(E)	2004	2010	2015	2025
Metros and Mini Metros - 8 cities	6.7	13	15	18	20	28
Top cities (population >1mn) - 27 cities	3.7	7.2	6	6	7	10
Large cities (population 0.5-1mn) - 32 cities	2.4	4.5	2	3	3	4
Rest of India - 5500 towns + 6 lakh villages	87.4	115.3	77	73	69	57
Source: NCAER, CSSO, TSMG analysis						

retailers should focus on the top 37 towns in the next decade. The opportunity in smaller towns and rural India would be smaller and fragmented as compared to the larger towns.

Key Treds in Organized Retailing

There are a few key trends that one observes in international markets that have a bearing on India.

Trend 1: Consolidation of market share - The big getting bigger

In the early stages of development in retail markets, there is a proliferation of players. For example in USA in 2003 the top 100 players accounted for only 8% of the total retail market with the top ten accounting for 3.2% of the market. However, when retail markets develop there is a consolidation of players with fewer large players dominating the market. This trend is starkly visible in the developed economies of US and Europe.

As per data from M&M Planet Retail, in 1990, 30 retailers accounted for 20% share of the US retail market. By 2005, only 8 retailers accounted for the same 20% share of the market. Similarly, in 1990 37 retailers accounted for 20% share of the European retail market. By 2005, only 10 retailers accounted for the same share of the market.

Trend 2: Convenience stores and hypermarket formats are gaining prominence

These are driven by consumer need for convenience and lower price / higher value in mass categories while big box category killer stores are gaining importance in the specialty retail categories. While supermarkets may emerge at the initial stages of retail market development, they are unable to match the consumer value proposition of convenience stores and hypermarkets.

Trend 3: Private label products become increasingly important

Private labels today account for 17% of global retail sales with the highest share of 23% in Europe and Asia the least at 4%. As per M&M Planet Retail data, private label penetration varies from 25%-95% among some of the largest retailers in the world.

Growing acceptance among consumers, increasing price competition and need for differentiation among retailers and lastly the ability to offer higher margins are the key factors contributing to the growth of private labels. Private labels provide the retailer an ability to offer a significant price advantage to consumers with private label prices being 16-32% lower as compared to manufacturer brands.

Implications for Indian Retailers

The global trends have important implications for Indian retailers. The Indian consumer remains value conscious. The consumer in most cases is willing to spend money, but remains cost conscious, evaluating every rupee spent. It is therefore imperative for retailers to offer price advantage via sourcing and operational efficiency and a strong private label program to attract customers. Existing and new entrants need to achieve scale quickly for driving efficiencies in procurement, supply chain and marketing. Else they risk being marginalized by larger players.

Real estate and human resources will be the critical drivers to build scale. While there are a few hundred malls under various stages of development across the country, retailers will need to think out of the box as well to ensure availability of real estate. This may include acquiring and developing the real estate themselves rather than wait for mall development. Given the rising demand for retail real estate, retailers will need to take a long term view on rentals and look at alternative options like ownership or very long term leases. Retailers that invest in training will be able to ensure availability of quality manpower in the rapidly growing market.

In summary, the retail market is the next growth frontier for corporate India. It offers an opportunity for a large player to build a Rs. 40,000 Cr retail business spanning multiple categories by 2015 (at current prices). Compared to this, the revenue of the largest Indian retailer Pantaloon was only Rs 1085 Cr in 2005. No wonder large domestic business houses and international retailers have expressed keen interest to enter the retail sector in India. However, to capitalize on the opportunity, a player needs to be aggressive in its outlook and build scale quickly.

Supply Chain Performance

The balancing act of maintaining a high level of service and low costs is becoming harder for retail supply chain directors as businesses try to meet the growing customer mantra of "more for less." This pressure comes at a time when business is becoming more global, supply chains are lengthening, and competition is on the rise.

Although this challenge is not new, the outlook is that it will intensify as a number of factors - economic, regulatory and market-driven - become more acute. Consequently, supply chain performance will have increasingly significant impact on overall business success.

Conclusively after research one must know the answer to question - What steps should retailers be taking now to improve their Supply Chain?

1. Assess where you are now

Transformation of the retail supply chain is a journey and requires a roadmap, or structured approach, on how to get there. The journey should begin with a diagnostic assessment of company's current supply chain performance, and comparing it to a future end state. The assessment should also analyze how the retailer company is positioned relative to leading practices of other companies both within and outside of the retail industry.

As a retail company matures through the various stages of a static enterprise model - functional optimization, horizontal process integration, external collaboration, on-demand supply chain - certain characteristics are evident. A diagnostic assessment will help determine where you are on the maturity model and help prioritize initiatives that will have the greatest impact on shareholder value and ROI. Based on this assessment of supply chain maturity in terms of processes, organizational aptitude and enabling technologies, one can begin to formulate a supply chain vision and strategy.

2. Develop a strategy for making change

The strategy should include the following key steps:

- Identify the company's core supply chain differentiators and capabilities, and assess current performance.
- Determine which functions could be better performed by a partner, and begin to identify these partners.
- Define the supply chain process components and needs for organizational reconstruction.
- Define the measurement framework, which is aligned with business objectives and goals. Set targets and thresholds for the key supply chain performance indicators.
- Evaluate the financial and operational value to be achieved in terms of financial performance and operational performance characteristics such as cycle time, quality and service level attainment. Use modeling tools to simulate end-state financial statements and operational performance criteria.
- Define the real-time information and connectivity vision, including an open and services-based technology architecture, required to support the vision.
- Prioritize which initiatives will have the greatest impact on growth, operational excellence, ROI and shareholder value.

3. Create a roadmap to achieve transformation

Transformation requires a roadmap that establishes the steps required to achieve the vision. Each supply chain component has associated performance criteria - both financial (e.g., costs, revenue influence) and operational (e.g., cycle time, quality, service level attainment). The initiatives with the greatest business impact, both financially and operationally, can be prioritized and implemented with speed to bring value to the organization. A transformation portfolio should be created which focuses on these prioritized initiatives.

4. Achieve the benefits of a new approach

A new mindset is required for implementing the strategy. The old model of fixed strategy and long implementation times is dead. In its place, companies are demanding either rapid ROI or an ROI that is self-funding, with a modular approach to implementation, often involving pilots followed by a scale-up.

More scrutiny is now being placed on the delivery and tracking of benefits, helping to ensure that benefits flow through to the bottom line and that multiple supply chain initiatives do not "double account" for benefits and overstate the business case, especially in inventory and process cost reductions. On-demand implementation approaches (e.g., gain sharing, pay-as-you-use) can provide the impetus to kick-start major transformation programs and generate the change momentum required to build a longer-term vision.

The description of logistics collaboration given here shows that retailing companies involved in collaboration are concerned with operational issues and that their collaboration is seldom brought to a strategic level. In addition to this, the results indicate that there are serious differences in attitude and behaviour between supplier and customer collaborations. The study shows that it is more intensive collaboration at an operational level that contributes to the achievement of better results, and that top management involvement has shown to be an important driver for such collaboration.

Some major findings concerning supply chain among retailing companies.

1. Supply chain management as practiced today is concerned with operational issues, and is seldom brought to a strategic level

The poor SCM practice by most of today's retailing companies becomes even more worrying when considering empirical investigations that acknowledge a direct linkage between SCM and company performance. The recognition of the importance of logistics and SCM issues from a company strategy perspective has been made in a number of articles in the last years.

2. There are differences in attitude and behaviour between customer and supplier collaborations

Apart from a low rate of strategic issues in the collaborations, the differences identified between supplier and customer collaborations also indicate that SCM based collaboration is more of an utopia than a reality. From a SCM theoretical point of view, this recognized pattern can have serious consequences for the collaboration performance in the supply chains.

3. Companies with more intensive SCM at an operational level achieve better effects from their collaborations

Existing collaborations can, however, despite the obvious advantages not always be considered as intensive. The process approach in the collaborations is perhaps the area with the greatest potential for improvements in order to bring about more intensive collaboration.

4. Top management involvement is an important driver for increased intensity in logistics collaboration

Current supply chain initiatives by the retailers

Retailing Companies today should emphasis more on the supply chain to transform their business model. They should radically change the way an organization senses, thinks, interprets and reacts. More and more, successful companies are organizing their supply chains horizontally (as opposed to the traditional vertical functional silos) and orchestrating end-to-end extended supply chains, or value chain networks.

Retailers should review their supply chain practices and defining visions for the future; but at the same time, they are fixing the basics - cleansing data, defining improved metrics, standardizing business processes and practices, training staff, and integrating technology - all in hopes of developing a low-cost supply chain that competitively positions the organization for the future.

Collaborative Planning, Forecasting and Replenishment (CPFR). Retailers are interested in finding ways to reduce inventories and improve their ability to both anticipate and fulfill consumer demand. They are improving their forecasting and merchandise planning activities and finding ways to work with manufacturers and suppliers to reduce cycle times and inventories throughout the entire supply chain. They are also looking at ways to replenish inventory rapidly through auto-replenishment tools and ways to improve working capital such as Scan-Based Trading.

Radio Frequency Identification (RFID) assessment. Indian retailers are assessing, and in some cases piloting RFID technology. They are closely watching Wal-Mart and other key retailers, including Metro AG, to determine the readiness of the technology and the success of rollout efforts. More importantly, they are developing their own business cases to link the use of RFID technology to business benefits and implementation costs. Metro AG's "Future Store Initiative" has delivered very strong results to date - results that will increase the visibility and popularity of retail technologies such as RFID. Concerns, while minor, are mostly associated with privacy issues - for example, the extent to which retailers have knowledge about the products consumers have in their homes.

Buying optimization. Retail organizations are performing strategic sourcing reviews, streamlining their buying practices and policies and investigating the potential for e-procurement technologies, particularly for non-merchandise spend. These projects tend to be low-risk but are associated with high returns: reduction in uncontrolled, unapproved spending from 5 per cent to 30 per cent; bulk discount savings of up to 20 per cent; and, significant reduction in administrative costs. They are also continuing to review their merchandise buying practices and looking for ways to reduce costs, improve inventory levels and better manage their base of suppliers. This is particularly important for Indian retailers who are sourcing products from around the globe.

Data synchronization. Retailers are also looking at ways to synchronize their data with that of their trading partners. It has been shown that inaccuracies in the supply chain contribute to approximately 10 to 15 per cent of total out-of-stocks. Data synchronization enables rapid purchase order and invoice reconciliation, eliminates data re-entry and reduces catalogue errors.

Reviewing supply chain network infrastructure. Revisiting the supply chain network is no small feat. Few retailers are interested in reviewing the cost-effectiveness and service levels supplied by distribution centers to retailers across India. This process normally involves utilization of sophisticated algorithms that take large amounts of data and determine costs and benefits of alternative network designs. There are other retailers who are constructing new distribution centers to support their growth and productivity objectives.

Outsourcing non-core functions. At a macro level, the retail industry has not yet, unlike other industries, outsourced core business processes such as human resources. However, retailers have outsourced supply chain functions and continue to outsource application management services (not complete outsourcing of information technology, but rather outsourcing of selected application support functions, such as help desk).

Legacy application replacement. Some Indian retailers are running portions of their supply chain with custom-developed applications, but more and more of these custom applications are being replaced with packaged software applications. For example, a number of Indian retailers are replacing their legacy warehouse management solutions with off-the-shelf packaged software. These projects tend not to focus on the technology alone but involve changes to business processes, people, the organization, and metrics in order to improve service levels from the distribution centre and/or lower service costs.

Supply chain visibility / information flow. Indian retailers are looking for ways to improve supply chain visibility across the entire pipeline. Supply chain event management tools have provided the capability to view end-to-end processes across the supply chain. This end-to-end view can help identify bottlenecks for product and information flow, allowing appropriate resolutions to take place.

Supply chain processes automation. Many supply chain automation applications now exist in retail. Automated data collection is a common application, due to the increased use of data collection devices and the high penetration of data warehouses. Also, many technologies in the logistics space - such as robotics - have improved productivity dramatically, justifying their initial capital expenditure.

Recommendations for Retailing Companies

- Align the overall short medium and long term business strategy with an integral SCM execution.
- Make education and training in SCM principles, techniques and practices a high priority.
- Encourage managers to step back from the day-to-day 'firefighting' mode of operation and allocate time to plan for the future.
- Make a commitment to invest in SCM solutions and new IT technologies to achieve supply chain process improvements.
- Promote and manage change. Change is a constant reality that can offer opportunities.
- Open communication lines with suppliers and customers. Companies need to closely integrate themselves into the supply network. Supplier-side and customer-side collaboration is essential in order to optimize the supply chain.
- Focus on improving forecasting techniques, order cycle time through improved interaction with customers and suppliers, and optimize inventory levels.
- Start planning for new technologies that provide supply chain transparency, such as RFID. These will change the way you use information, so get ready.
- Measure the effectiveness of SCM against critical market and customer focused performance measurements such as on-time delivery, inventory turns, lead times, etc.

Biblography

1. Aaker D A (1989), "Managing Assets and Skills: The Key To a Sustainable Competitive Advantage", *California Management Review*, Winter, pp 91-105
2. Abair R A (1997), "Agile Manufacturing: Successful Implementation Strategies", *Annual International Conference Proceedings - American Production and Inventory Control Society*, pp 218-219
3. Abramson N R and Ai J X (1997), "Using Relationship-Style Buyer-Seller Relationships in China: Reducing Uncertainty and Improving Performance Outcomes", *The International Executive*, vol 39, no 6, pp 765-804
4. Academic Alliance Forum (1999), "Future Competition: Supply Chain Vs Supply Chain", *Logistics Management and Distribution Report*, vol 38 no3 pp 20-22
5. Bovet D and Sheffi Y (1998), "The Brave New World of Supply Chain Management", S*upply Chain Management Review*, Spring pp 14-23
6. Bowersox D J Closs D J Cooper B M (2002), *Supply Chain Logistics Management*, McGraw-Hill, New York
7. Bowersox D Stank TP and Daugherty PJ (1999), "Lean launch: managing product introduction risk through response-based logistics", *Journal of Production Innovative Management*, vol 16 no 6, pp 557-68
8. Chan I (2001), "Supply Chain Vs Supply Chain", *Intelligent Enterprise*, July pp 50-59
9. Chang T Z and Chen S J (1998), "Market orientation, service quality and business profitability: a conceptual model and empirical evidence", *Journal of Services Marketing*, vol 12 no 4, pp 246-64
10. Durant W (1944), *The Story of Civilization, Part III-Caesar and Christ*, Simon Schuster, New York
11. Dwyer F R and Welsh M A (1985), "Environmental Relationships of the Internal Political Economy of Marketing Channels", *Journal of Marketing Research*, vol 22, November, pp 397-414
12. Dwyer F Robert, Schurr Paul H and Oh Sejo (1987), "Developing Buyer-Seller Relationships," *Journal of Marketing*, vol 51, April pp 11-27
13. Dyer JH and Singh H. (1998), "The relational view: cooperative strategy and sources of interorganizational competitive advantage", *Academy of Management Review*, vol 23 no 4, pp 660-79
14. Easterby-Smith M, Thorpe R and Lowe A (1991), *Management Research: An Introduction*, Sage, London
15. Frohlich MT and Westbrook R (2001), "Arcs of Integration: An International Study of Supply Chain Strategies", *Journal of Operations Management*, vol 19 no 2, pp 185-200
16. Fulconis F and Paché G (2005), "Exploiting SCM as Source of Competitive Advantage: The Importance of Cooperative Goals Revisited", *Competitiveness Review*, vol 15 no 2, pp 92-100
17. Fuller J B, O'Conner J and Rawlinson R (1993), "Tailored Logistics: The Next Advantage", *Harvard Business Review*, vol 71 no 3, pp 87-98
18. Galbreath J and Rogers T (1999), "Customer Relationship Leadership: a Leadership and Motivational Model for the Twenty-First Century Business", *The TQM Magazine*, vol 11 no 3, pp 161-171
19. Ganesan Shankar (1994), "Determinants of Long-Term Orientation in Buyer-Seller Relationships," *Journal of*

Marketing, vol 58, April pp 1-19

20. Gao T Sirgy, M J and Bird M M (2005), "Reducing Buyer Decision-Making Uncertainty in Organizational Purchasing: Can Supplier Trust, Commitment, and Dependence Help?" *Journal of Business Research*, vol 58, no 4 pp 397-551

21. IBM Institute for Business Value (2003), *A Retailer's Guide to Supply Chain Management*, IBM Canada Business Consulting Services, Ontario

22. *ICICI Properties and KSA Technopak White Paper (2007)*, *India Retail Real Estate* - 2005-06

23. ICRIER Retail Report (2008), *Impact of Organized Retailing on the Unorganized sector,* Available at: http://siadipp.nic.in/policy/icrier_report_27052008.pdf

24. Images - KSA Technopak (2005), *India Retail Report-2005: I, II and III, KSA Technopak*, New Delhi

25. Stewart G (1995), "Supply chain performance benchmarking study reveals keys to supply chain excellence", *Logistics Information Management*, vol 8 no 2, pp 38-44

26. Stewart G (1997), "Supply-chain operations reference model (SCOR): the first cross industry framework for integrated supply chain management", *Logistics Information Management*, vol 10 no 2, pp 62-7

27. Storey J, Emberson C and Reade D (2005), "The Barriers to Customer Responsive Supply Chain Management", *International Journal of Operations and Production Management*, vol 25, no 3, pp 242-260

28. Towill D and Christopher M (2002), "The Supply Chain Strategy Conundrum: To be Lean Or Agile or To be Lean and Agile?", *International Journal of Logistics: Research and Applications*, vol 5 no 3, pp 299-309

29. Towill, D. R. (1996), "Time Compression and Supply Chain Management - A Guided Tour", Supply Chain Management, vol. 1 no. 1, pp. 15-27.

30. Towill D R (1997), "The Seamless Chain- the Predator's Strategic Advantage", *International Journal of Technology Management*, vol 13 no 1, pp 37-56

31. Tracey M, Vonderembse M A and Lim J S (1999), "Manufacturing Technology and Strategy Formulation: Keys to Enhancing Competitiveness and Improving Performance", *Journal of Operations Management*, vol 17 no 4, pp 411-428

32. Zielke A and Pohl M (1996), "Virtual Vertical Integration: the Key to Success", *The Mckinsey Quarterly*, pp 160-163