CHAPTER 4

SCENARIO OF RETAILING:
AN OVERVIEW
4 SCENARIO OF RETAILING: AN OVERVIEW

Liberalized financial and political environment in India has prompted a wave of a large numbers of entrants into the country’s rapidly growing retail industry during the past few years. The fundamental drivers of change are increasing per capita income, growing GDP, availability of consumer finance, changing life style etc. Retailing in general sense consists of business activities that are involved in buying and selling of goods and services to ultimate consumers for their own use- ranging from bread butter to automobiles, to apparels to airline tickets. In India, after agriculture, the retail is the second largest sector which provides employment to India’s workforce.

The beginning of retail business in India can be traced back to the emergence of weekly bazaars and rural fairs (Melas). These weekly bazaars, used to be a big attraction to the both urban and rural people by catering to their day to day requirement and also serving as a source of entertainment. In comparison to weekly markets, village fairs usually were bigger in size with a wide variety of goods sold. Then the traditional age saw the emergence of the neighbourhood “Kirana Store” usually known as convenience store or Mom-and-Pop store, to cater to the local consumer.

India is going through a retail revolution. All the big business houses are entering this Sector and it is growing at a very fast pace. International giants in this sector like Wal-Mart, Tesco and Carrefour are also trying to enter the Indian market. Retail is offering tremendous opportunities in employment. However, our country also poses a big challenge to organized large retailers particularly in the food sector. Food being a perishable item, for the retailer to be successful the key is a proper supply chain management. The challenge comes from a number of factors, e.g. huge size and population of our country, varied culture and hence varied taste, very poor infrastructure like improper roads, bad connectivity between production centres and markets, lack of proper cold chain facilities like refrigerated transportation,
ware-housing etc. Under these circumstances it is interesting to find out how large organized retailers are coping up with these problems.

In India, a large number of retailers who operate are independent retailers. Stores like the local baniya/kirana store and a paanwala are examples of independent retailers. The ease of entry into the retail market is one of the biggest advantages available to an independent retailer. Depending on the location and product mix that he chooses to offer, he can determine the retail strategy. The independent retailer often has the advantages of having a one to one rapport with most of his customers. However, on the flip side, the advantages of economies of scale and the bargaining power with the suppliers is limited.

As we have already discussed in first chapter, it is again significant to mention that there are three major types of retailing, first is Market, where buyer and seller are in contact. This involves selling on the sidewalks, streets etc. The second form involves shop or shop trading where goods are out of buyers’ reach and are kept at a distance which the sellers supply them on demand. The third type is virtual selling where products are offered online and then selling is done involving e-mail, online shopping. In nineteenth century, in France, arcades were invented, where shops were made roofed on both sides of the streets. The first supermarket opened in U S A in 1920s, with which the concept of self service was started. Around the same time, the first mall was also constructed with both arcade and departmental store style. Soon the revolution started as people got to feel the products before purchasing them, they had a variety to choose from and the ambience added to the beauty of the new concept. The scenario remained and the concept spread to the whole world very fast. This has not only opened the vistas for global retail but also provided a next big revolution called Retailing. Retailing both reflects and determines culture as consumer goods are the focus of our labour, economy and collective lifestyle.

Retailing is the most unifying and common force for the youth of our society. Retailers now are on a spree to make their global presence felt by entering
into the untapped markets which have immense consumer base, especially India and China. Wal-Mart; Carrefour etc. are eying these markets through acquisitions or through mergers.

According to Mr. R Subramanian, Director of the Chennai-based discount retail chain, ‘Subhiksha’: "Food and grocery retailing is a tough business. Margins are low, and consumers are not dissatisfied with existing shops where they buy. For example, the next door grocery shopkeeper is smart and delivers good customer service, though not value."

However in the present scenario where ‘Subhiksha’ retail outlets are closed due to heavy loss, the statement of Mr. R Subramanian is very relevant in the context of supply chain management which can be applied as a tool for cost cutting.

**Scenario of Food Retail**

The perishable food supply chain is generally considered to be the most complex in terms of movements of goods, because of their time and temperature-sensitive nature. A typical example of perishable food products are fruits and vegetables. Perishable food products require not only efficient production but also efficient specific storage, handling, and swift customer delivery procedures. Experience shows poor trade facilitation is a major determinant to trade in these products.

Food and Grocery form a big and better portion of organized retailing these days. India’s retail sales now account for 44 per cent of its GDP. Food retail sales make up for close to 61 per cent of total retail sales. In absolute terms, food retail sales have grown from Rs 3,81,000 crore in 1996, to Rs 7,03,900 crore in 2001. And, just for the record, non-food retail sales have grown from Rs 2,22,400 crore in 1996, to Rs 4,19,000 crore in 2001. Besides, the food and grocery sector now accounts for 14% of total organized retail, after clothing and textiles (36%) and watches and jewellery (17%). Modern, or organized retail, accounts for just about 5 per cent of the total retail sales in

The summary of status is presented below on the basis of data extracted and compiled by researcher based on NABARD report, ‘Organized Agri-food retailing in India’ January 2011.

Table: 4.1

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Current Size (2008-09)</th>
<th>Expected Size in 2020</th>
<th>Overall increase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>Rs.17497 billion</td>
<td>Rs.53,517 billion</td>
<td>206</td>
</tr>
<tr>
<td>Food Retail</td>
<td>Rs.10673 billion</td>
<td>Rs.32696 billion</td>
<td>206</td>
</tr>
<tr>
<td>Organized Food Retail</td>
<td>Rs.150 billion</td>
<td>Rs.620 billion</td>
<td>313</td>
</tr>
<tr>
<td>Organized retail space for F&amp;B</td>
<td>22 million Sft.</td>
<td>52 million Sft.</td>
<td>136</td>
</tr>
<tr>
<td>Warehouse space for organized food retail</td>
<td>7.33 million sqt</td>
<td>17 million sqt</td>
<td>132</td>
</tr>
<tr>
<td>Manpower (direct) for Organized retailing</td>
<td>0.85 Lakh numbers</td>
<td>1.84 Lakh numbers</td>
<td>116</td>
</tr>
<tr>
<td>Investment on IT infrastructure for F&amp;B</td>
<td>Rs.0.8 billion</td>
<td>Rs.3.1 billion</td>
<td>288</td>
</tr>
<tr>
<td>Long term investment for organized retailers in F&amp;B (Interior, refrigeration, rental advance &amp; IT)</td>
<td>Rs.29 billion</td>
<td>Rs.165 billion</td>
<td>469</td>
</tr>
<tr>
<td>Short term investment for organized retailers (Inventory)</td>
<td>Rs. 5.7 billion</td>
<td>Rs.23 billion</td>
<td>304</td>
</tr>
<tr>
<td>Long term credit demand by organized F&amp;B retail</td>
<td>Rs.20 billion</td>
<td>Rs. 78 billion</td>
<td>290</td>
</tr>
<tr>
<td>Short term credit demand by organized F&amp;B retail</td>
<td>Rs. 4 billion</td>
<td>Rs. 15 billion</td>
<td>275</td>
</tr>
<tr>
<td>Total credit demand by organized F&amp;B retail</td>
<td>Rs. 24 billion</td>
<td>Rs. 93 billion</td>
<td>288</td>
</tr>
<tr>
<td>Creation of retail space for F&amp;B*</td>
<td>Rs. 22 billion</td>
<td>Rs. 80 billion</td>
<td>264</td>
</tr>
<tr>
<td>Creation of retail warehouse space for F&amp;B*</td>
<td>Rs. 3.7 billion</td>
<td>Rs. 15 billion</td>
<td>305</td>
</tr>
</tbody>
</table>

*Excluding the investment in Land


[50]
The comprehensive lists of Food & Grocery retail in India are:

<table>
<thead>
<tr>
<th>PARENT GROUP RETAIL</th>
<th>STORE NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heritage foods</td>
<td>Fresh @</td>
</tr>
<tr>
<td>Big Bazaar</td>
<td>Food Bazaar</td>
</tr>
<tr>
<td>Bharti Enterprises</td>
<td>Field Fresh</td>
</tr>
<tr>
<td>RPG Group</td>
<td>Food World</td>
</tr>
<tr>
<td>Nilgiris+Actis</td>
<td>Nilgiris</td>
</tr>
<tr>
<td>Viswapriya</td>
<td>Subhiksha</td>
</tr>
<tr>
<td>Reliance Industries Ltd.</td>
<td>Reliance Fresh</td>
</tr>
<tr>
<td>Dairy farm International</td>
<td>Giant</td>
</tr>
<tr>
<td>Supplyco(KSCSCO)</td>
<td>Maveli stores</td>
</tr>
<tr>
<td>RPG Group</td>
<td>Spencer’s</td>
</tr>
<tr>
<td>AB Group</td>
<td>Fab Mall</td>
</tr>
<tr>
<td>AB Group</td>
<td>Trinendra</td>
</tr>
<tr>
<td>Sankalp</td>
<td>Retail value</td>
</tr>
<tr>
<td>stores(AHMBD)</td>
<td>Sankalp</td>
</tr>
<tr>
<td>Hiranandani Group</td>
<td>Haiko</td>
</tr>
<tr>
<td>Trent Ltd</td>
<td>Star India Bazaar</td>
</tr>
<tr>
<td>Shoprite Hypermarket</td>
<td>Shoprite</td>
</tr>
<tr>
<td>Cooperative (Kerala)</td>
<td>Triveni Stores(Kerala)</td>
</tr>
<tr>
<td>M K Ahmed (Bangalore)</td>
<td>M K Retail(Bangalore)</td>
</tr>
<tr>
<td>Margin Free Markets</td>
<td>Margin Free Stores(Kerala)</td>
</tr>
<tr>
<td>Godrej</td>
<td>Nature’s Basket</td>
</tr>
<tr>
<td>Wadhawan group</td>
<td>Spinach</td>
</tr>
<tr>
<td>Piramyd holdings</td>
<td>Trumart</td>
</tr>
<tr>
<td>Zakaria Shahid Group</td>
<td>Sabka Bazaar</td>
</tr>
<tr>
<td>Apna Bazaar (Cooperative Retail chain)</td>
<td>Apna Bazaar</td>
</tr>
<tr>
<td>Adani group</td>
<td>Adani</td>
</tr>
<tr>
<td>Radhakrishna Group</td>
<td>Radhakrishna Foodland</td>
</tr>
<tr>
<td>Varkey’s(Kerala)</td>
<td>Varkey</td>
</tr>
</tbody>
</table>

The above list only highlights the key players in Food & Grocery retailing in India. These organized retailers are also present in Pune. More, Reliance Fresh, Spencers, Food Bazar are few examples.
### India Industry Profile

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Indian Food Market Size (2008)</td>
<td>USD 182 billion</td>
</tr>
<tr>
<td>Food Processing Industry Size (2008)</td>
<td>USD 67 billion</td>
</tr>
<tr>
<td>Industry Contribution to GDP</td>
<td>17 percent</td>
</tr>
<tr>
<td>Growth in 2007-08</td>
<td>13.1 percent</td>
</tr>
<tr>
<td>CAGR (2015)</td>
<td>20 percent</td>
</tr>
<tr>
<td>FDI Inflows (April 2000 – April 2009)</td>
<td>USD 750 million</td>
</tr>
<tr>
<td>World ranking in production</td>
<td>Ranks in the top three producers of rice, wheat, coarse grains, fruits and vegetables, tea, coffee and jute and has the largest population of several livestock</td>
</tr>
</tbody>
</table>

Source: India Food Report, 2008, Ministry of Food Processing Industries, Indian MSME Ecosystem, DCGIS, India Food Industry report, 2009, FICCI & Technopak, Indian Agribusiness sector at look, CLSA

Table: 4.2

Every business has its distinctive way of organizing the very many activities that are involved in delivering its product or service to the end consumer. In retail parlance, one would term it as the format adopted by the retailer to reach his end consumer. Over a period of time, as business grows, changes occur in the environment, the customer and the geographies in which business is conducted. Companies are confronted with new information and communication technologies, shorter product life cycles, global markets and tougher competition. Various retail models exist in the world of retail.

To start with, let us first understand what a business model in retail entails. A business model is the manner in which a business chooses to serve its customers and stakeholders. In retail, a business model would dictate the product and / or services offered by the retailer, the pricing policy that he adopts. The communication that follows to reach out to customers and the size looks at the location of Retailer's retail store. This is termed in retail as a format in which the retailer operates. It has to be borne in mind that a retail
model is relevant with reference to a particular time frame and the critical factors, which affect the retail model, are:

   a) Trends in market positioning
   b) Competition and
   c) The organizational capabilities.

These three factors jointly enable the understanding of the contexts and strategies adopted by retailers over a period of time.

4.1  **Retailing Function**

Retailers are the last and vital members in the channel of distribution. The retailers serve the manufacturer by providing his goods and services to the consumers and create a channel for information on customer’s feedback. From customer's point of view, the retailer’s main function is to provide merchandise in the right quality, quantity, price, time and at the right place.

**Identifying Consumer Demand**

The first task that retailer has to perform is to identify the consumer needs and wants. The retailer does not provide raw material, but offers finished goods and services in a ready to use form that the consumers want. For this, time to-time retailers' gather information about consumers' liking, disliking, tastes and preferences.

**Management of Merchandise**

The second task the retailers perform is the management of merchandise. The retailer performs the function of storing the merchandise and provides as and when required by the consumer.

**Convenience of timing for shopping**

The retailer creates time utility by keeping the store open and ready for sale according to consumers' convenience. The new trend in retailing to longer trade hours reflects the socio cultural changes where over one in ten people
work outside normal hours resulting in changing trading hours and this works as panacea for small retailers against the cheaper price of superstores and other retail chains. By being available at a location that has easy access and convenient to shop, retailers create place utility. Finally, when selected and bought by customers, retailers create ownership utility.

**Consumer Satisfaction and Offering Through SCM**

For customer centred retailers, consumer satisfaction is both a goal and a marketing tool. Companies that achieve high customer satisfaction ratings make sure that their target market knows it. Customer value and satisfaction is important as well as a challenging job for retail organization because of the following reasons as observed by professor Claes Fornell of the University of Michigan during creation of index for measuring customer satisfaction\(^{19}\).

- Retailer offers a homogeneous product to a heterogeneous market.
- Repeat buyers face high switching cost.
- As the market share increases, satisfaction level falls.

Michael porter’s ‘Value Chain’ model which identifies nine activity consisting of five primary (viz. Inbound logistics, operations, outbound logistics, Marketing & sales and services) and four support activities(viz. firm infrastructure, human resource management, technology development & procurement) are nothing else but various functions and sub-functions of supply chain management\(^{20}\).

Therefore, Product, Quality, Service & Price are the elements of customer offering that can be used as a tool for creating consumer value and satisfaction through effective supply chain management in organized as well as unorganized retail.

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4.2 ORGANIZED AND UNORGANIZED RETAILING

Organized retailing refers to trading activities undertaken by licensed retailers and includes formats such as hypermarkets, supermarkets and retail chains. (Refer ICRIER report on Human Resource and Skill Requirements in the organized Retail Sector (2022)- by National Skill Development Corporation.)

NABARD defines Organized retailing as ‘Trading activities undertaken by licensed retailers (registered for sales tax, income tax etc) with proper technical and accounting standardization’. (Defined by NABARD in ‘Organized Agri-food retailing in India’ January 2011.)

Organised Retail refers to those companies engaged in retailing which have a network of retail outlets supported by a well defined Supply Chain who adopt professional and integrated management for day to day operations.

This Supply Chain has less number of middlemen compared to the unorganized sector. Due to a number of factors like cutting down of middlemen, removing of bottlenecks along the supply chain, efficient processes, etc., the end user gets a better product and service. The modern organized retail formats recognized today as Supermarket or Hypermarket concepts are largely popular as one stop shopping destinations along with entertainment zones.

In India, traditional forms of independently owned small business and co-operatives have lost their earlier charm. Though the arrival organized retailing in India is a bit late but it is increasing by leaps and bounds. In 2005, the retail industry in India amounted to Rs. 10,000 billion and is expected to cross Rs. 40,000 billion by 2015.
Traditional retailing continues to be the backbone of the Indian retail industry, traditional/unorganized retailing contributing to the 95% of total retail revenues. The prototypical ‘Baniya’ outlet or the corner store format comprises a key part of Indian Retail Store formats mostly run as family businesses. The unorganized retailing comprises of ‘Mom and pop’ stores or ‘Kirana’ stores. These are small shops located near the residential areas, popularly known as ‘baniya shops’. The UMP i.e. unique marketing proposition of these stores is location advantage. These shop owners in order to retain their customers can even go to their customers’ houses to get orders. Trading hours are flexible and the retailers to consumer ratios are very low due to the presence of several kirana stores in the locality. A credit facility varies from store to store and consumer to consumer. Customers’ reliability and relation with shopkeeper is enough to avail the credit facility. Branding is not the criterion to attract the customers, as customers generally prefer low priced products. Further retailers’ suggestion and recommendation regarding any product or service plays a significant role in the consumer purchase decision.
EVALUATION OF UNORGANIZED VIS-À-VIS ORGANIZED RETAIL

Figure 4.1  Public Market Experience

The Indian Consumer prefers the Public Market experience, so the organized retailer attempts to create an atmosphere which “feels like” this experience.

For the average Indian, dusty and dirty means fresh from the farm. The Indian consumer likes to pick out the produce themselves and barter over the price.

Providing damaged fresh produce, as well as good-quality produce in the same box, gives shoppers a chance to choose and think they are getting a better deal.

Indian consumers aren’t used to processed and packaged goods, so the stores sell wheat, rice, lentils and other products out of large buckets. Consumers like to touch and smell the grains.

Products are often displayed in large bins, rather than on shelves, because Indian consumers are accustomed to looking down as they shop.

[57]
Causes of Low Productivity in Unorganized Retail

1) **Labour intensity**: Unorganized retail in India has a very low output to labour consumption ratio. Low labour costs, failure to employ part-time labour and the absence of multitasking are mainly responsible for the unusually high consumption of labour. This has driven down the productivity in the sector.

2) **Inventory and Supply Chain Management**: Unorganized retailers rarely track consumer behaviour and sales data to improve their inventory management practices. Even among the handful of retailers that employ experience-based improvements in their business, their efforts are largely met with no support from their suppliers. Corner-stores and street vendors do not have the infrastructure, exposure or credibility to form lasting relationships with suppliers. As a result, retailers usually use different suppliers every time they purchase perishable produce. This leaves them largely incapable of strategically managing their business.

3) **Low Barrier to Entry**: A large number of people/ labour looking to move into retail, low barriers to entry and the absence of regulation in this sector have made it a largely over-supplied sector. The excess supply of corner-stores and street vendors represents a tremendous decrease in the productivity of this sector.

4) **The absence of any real competition** - Almost all retailers find a way to make ends meet or change their merchandise till they make ends meet - is also responsible for a form of status quo in the sector where little to no improvements in efficiency, management and by extension productivity are seen. In fact, this sector is so stagnant with respect to operational changes that no improvement in productivity is expected in the near future.
Low Productivity, but Still Successful

However, low productivity is only an indication of underutilization and / or over allocation of resources. It does not reflect the market share or potential of the unorganized retail sector when it comes to catering to the consumer.

The unorganized retail sector competes on the basis of a number of factors that give it a leg up on organized retail. Much of the reason why unorganized retail has dominated the retail market is the unique ways in which it operates when it comes to serving the consumer. Corner-stores have catered to the traditional Indian consumer psyche and are partially responsible for shaping it. For unorganized retail, the market mantra is “convenience”:

1) **Home-Delivery**: Corner-stores and street vendors do their best to cater to the local population in the area in which they operate. As a result most of them provide home-delivery services, for any and all order sizes, at no extra charge. Shopping is as simple as making a phone call and narrating the shopping list to the store owner. Within minutes, the entire list of perishable with an itemized, hand-written bill reaches to doorstep. The absence of product variety, brand diversity, marketing and exposure had made shopping in stores almost unnecessary for the consumer. Retailers unconstrained by labour costs had no problem in understanding this dynamics and adapting to the needs of the consumer.

2) **Credit**: Unorganized retailers enjoy a loyal and limited clientele. The personal nature of transactions coupled with small transaction sizes allows unorganized retailers to sell goods on credit often settling bills with clients at the end of the month.

3) **Proximity**: Unorganized retailers like corner stores are almost always located at a few minutes walking distance from their clients. Street vendors will go door-to-door selling their goods. This has
provided a number of advantages to the consumer. He receives his purchase almost immediately and thanks to the home-delivery of goods, the consumer never has to move more than half a mile from his house to purchase food, and other goods. Finally, the proximity of unorganized retailers caters to the just-in-time mentality of consumers who prefer to buy goods when needed for immediate use rather than making bulk purchases in advance.

**Cutting Costs in Any Possible Way: Legal and Illegal**

Convenience is not the only aspect of unorganized retail that has allowed it to dominate the industry. The unorganized nature of this sector has also allowed it to survive price competition with large-scale organized retailers with efficient supply management, inventory control and bulk purchasing. Unorganized retail with their small inventory, high purchase costs and relatively small size have been able to save on a number of other fixed and variable input costs to offer goods at competitive prices:

1) **Real-Estate**: Unorganized retailers usually operate from their residences that double-up as corner stores or like street-vendors carry their merchandise with them. As a result, they incur little to no real-estate costs.

2) **Labour Costs**: Unorganized retailers usually staff their stores with family members who have no other source of employment than to work in the family store, as labour costs are low. Additionally, the lack of regulation in the sector as well as high unemployment level allow unorganized retailers to hire labour at very low rates.

3) **Utilities**: Corner stores/ street vendors operating out of homes usually pay residential rates/ small amount of mandi tax for utilities like electricity and water. With the large disparity between commercial

[60]
and residential utility rates, unorganized retailers do not have to worry about these inputs eating into their profits.

4) **Tax:** Unorganized retailers rarely pay taxes due to the absence of regulation and supervision in this sector. This also allows them to reduce prices. Generally books of account are not maintained or audited.

Unorganized retail has dominated the market for decades. The small scale of each vendor was perfect to cater to the reluctant shopper while the large number of players kept several people employed. In this situation, there was little motivation to bring organization into the sector. It took strong economic growth, liberalization of the economy and change in the mind-set to realize the advantages of bringing organization to retail industry.

Organized retail has a bright future in India, but not one that will be easy to achieve. The country's lack of supporting infrastructure will pose a unique challenge to organized retailers who must strike a delicate balance between adaptation and innovation in order to succeed in the industry.

**Productivity Performance of the Organized Retail Sector**

This section tries to outline the challenges which need to be overcome by retailers thinking about entering the organized retail sector. The labour productivity of retail in India stands at a low 6% of the US levels, according to a Mckinsey Global Institute’s report on Indian Retail Sector. This 6% per cent is distributed unevenly with 5 per cent for food retailing and 8 per cent for non-food retailing. In comparison, the food retailing productivity in Brazil is 14 per cent and non-food retailing in Poland is 25 per cent.

The rural retail employment accounts for about 60 per cent of the total employment in the sector. Rural productivity in retail is about 60-65 per cent that of urban centres. There are certain clear cut reasons why this should
be the case. The average sales, in terms of rupees per day, in a rural store are close to Rs. 1000 compared to Rs. 7,00,029 per day for a store in an urban area. Some of the reasons for this can be attributed to lower purchasing power in the rural areas, self-consumption of agro-produce and a tendency of villagers to purchase from cities. Because of these reasons, people in the villages generally stock consumables such as tea, sugar, bulbs, wires, stationery, and a few items of clothing. Low opportunity cost of the labour entails longer work hours in this rural setting.

**Reasons for Low Productivity**

Some of the reasons that have been outlined for the poor productivity performance are – a format mix which skews towards transition formats, and poor operational efficiency of modern formats.

**Vicious Circle:** At any place, big supermarkets and specialty stores leverage their volumes to drive costs down and possess superior skills (especially in managing inventory and marketing) to make themselves more productive than unorganized retail stores. A key factor behind the miniscule growth share of supermarkets, especially in food retail is the under-developed nature of upstream industries. This results in a relatively higher pricing in the supermarkets when compared with local stores, giving unorganized sector an edge over the organized sector in retail. A fragmented supply chain, a sub-scale processing sector and lack of proper cold storage facilities are some of the problems which plague the organized retail sector, especially in perishable food. The current government policies are also favourable to unorganized retail stores in the form of relaxed labour and tax regulations.

**Poor Productivity in modern formats:** Supermarkets in India have to operate in face of productivity hassles which can be attributed to some of the following operational aspects of this sector:
1. Scattered and inefficient supply chain which inflates procurement costs (lack of focus in having a few nationwide suppliers and instead having up to 400 per region 30 needs a huge sourcing and quality control team raising costs of procurement).

2. The supply chain for food in India has two or three additional intermediaries on an average compared with supply chains in the US. This can, in part, be attributed to the market regulations such as constraints in food grain movement across states, inability to purchase directly from farmers, Stock limits imposed by government on various commodities etc. This in turn slows down the growth of large processors.

**Non-level Playing Field in the Retail Sector**

Unorganized retail stores in India take advantage of some of the following benefits accorded to them by the government:

**Tax Vacation:** The government policy enforces higher tax rates for organized retailers, with making them pay at corporate rates, while unorganized retailers still pay at individual income tax rates. Tax evasion is rampant among small unorganized retail store owners, in fact so few of the small mom and pop store owners pay taxes, that most of them could be thought of being on a tax vacation with the government, conveniently looking the other way.

**Uneven tax rates across states:** The present tax structure necessitates the imposition of tax on retail chains operating in a non-localized fashion. The sales tax structure has differences in rates across states, in addition to the imposition of a central levy on inter-state sales. It doesn’t end there, another tax (octroi) is levied on the movement of goods from one district to another.
Labour laws: Developing countries in general have generous labour laws. The labour laws in India ask that work for a retail employer is limited to 8 hours, and also require that the shop be shut for one day in a week. Though organized retailers adhere to these laws, the counter stores remain open throughout the year, making labour work for over 12 hours a day.

Non-payment of market rates for inputs: Lower rent and nominal power cost (if any) characterizes the unorganized retail stores, as opposed to extremely high land and property rent paid by the organized sector.
4.3 RETAIL MAGIC: EVALUATION OF PROS AND CONS

In the retail industry, supply chain and logistics costs must be measured with precision and regularity. In a retail category, such as general merchandise (grocery), perishable food products, the margins are not great and undercutting the small retailers, paying the employees more for greater specialization and returning a decent profit to shareholders. General merchandise margins are thin and are tied to great sales volumes to keep the business profitable, but even with great sales volumes, it will be impossible to deliver lower or even at market prices and make money if costs are not tightly controlled.

The cost of logistics for a retail chain as a percentage of the cost of goods sold (COGS) has to be close to four or five percent for warehousing and transportation together. This is the standard that an international general merchandiser would target and Indian retailers must aim for this as well. This is easier stated than done. Achieving this level of efficiency requires overcoming a large number of challenges in India.

India’s organized retail is ramping up again after the recession-induced churn, yet supply-chain practices in the sector and the available infrastructure remain scruffy. In a global economy which is still recovering from a crippling recession, the Indian retail industry, regulatory warts and all, is viewed as an attractive segment by global and local retail logistics players. It is evident with growing disquiet the sub-standard infrastructure will not only short circuit India’s economic growth if left unattended, but also add to existing supply-chain problems of organized retail.

Indian organized retail is dogged by several complex supply chain problems of which the road network constitutes a substantial component. The state of not just the highways between cities, but also the roads within cities which are pockmarked by potholes are the major concern. The level of maintenance of roads is very bad, while the speed breakers are vicious.
That affects the fleet movement. In most developed countries, only minor roads in residential areas have speed breakers.

India plans to spend US$60 billion over the next five years to build new roads or to improve existing ones across its vast territory. Indian companies have signed nearly US$5 billion worth of road-building deals with international investors in the last few years, and the pace is expected to increase. India's 70,000 kilometers of highways, 16,000 are not worth driving on and 40 per cent of India's fruits and vegetables rot before reaching market because of delays from poor roads and rail lines21.

Equally critical is the difficulty that organized retailers experience in acquiring large sites for building warehouses due to the scarcity of such sites. Further, the construction of warehouses is also unsatisfactory with most Indian warehouses built to specifications long discarded in the west. 80 percent of Indian warehouses will soon be obsolete due to these outdated construction concepts. Indian developers will have to learn from global best practices on how to build warehouses with the right height, no columns in-between and a good floor. Warehouses are an expensive investment so their construction must be accordingly planned with main retail distribution centres and must span three to four lakh square feet with roofs which are 10 or 12 meters high with proper loading docks. The companies must also hire good project consultants, who give them the correct specifications for their warehouses, along with good contractors. These are expensive requirements, but companies have to invest in them to get the right warehouses22.

**Lack of Capable Management and Skilled Labour**

Supply chain operations are also hampered by the poor quality of logistics management which leads to a pause in growth. Even global consultants who

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21 CII Newsletter 09 JUN 10, Mr. Kamal Nath, Minister for Road Transport and Highways)

22 CII Newsletter 09 Jun 10, ‘Future Supply Chain Solutions’ Lionel Stanton points out the grey areas and the ways out in a chat with Pamela Cheema.
offered advanced warehouse planning systems need intensive education in the Indian ways of management. It has been seen that even American and European consultants have often failed spectacularly in India, despite the latter’s expertise. Therefore, to avoid failure, one needs to know and work with the Indian way of thinking. Indian logistics management personnel are required to be acquainted with greater proficiency in information technology, modern warehouse management systems and people skills, where as companies must “train their own trainers” to leverage their expertise.

As an Indian, it is also tempting to view supply chain efficiency as a series of straightforward engineering problems, but that would be a great mistake. It is apparent that there are cultural challenges that are holding back at least some modern retailers from achieving supply chain success.

India is familiar with the success of large corporate, but apart from the software sector, much of this success lies in heavy industry. Also, in these businesses “who” is working in the plant or “what” they are doing has less to do with success than the huge capital that has been deployed.

Retail differs radically from this business model. The capital deployed is huge, but the people working in it have a much greater impact on the venture’s success on an on-going basis. Monitoring and guiding tens of thousands of people every day without smothering them is not easy. In India, this question requires as much attention as any of the engineering issues surrounding a business.

It was observed during a visit in a warehouse where the pickers were equipped with the latest technology and equipment; this site closely resembled some of the modern distribution centres overseas. However, what was different was how the technology was being used. One employee was picking up cases and putting them on a pallet, while the other one checked the list of pallets on a computer and told the other employee what to pick. In a western DC there would have been just one person doing the
job, but since there are cultural differences, reading and doing manual labour are incongruent in India.

This experience reflects one of the many cultural challenges in achieving high levels of productivity on the sub-continent, but these challenges are not limited to just the worker level. It was observed that old hierarchical Indian manager who makes all the decisions and doesn’t allow his subordinates a voice in the process. The place is paralyzed until he makes a move. Unfortunately, there are just too many decisions on a daily basis for a retailer to operate that way.

Retailers need to find employees and managers who believe otherwise. To attract such employees, Indian retailers need to follow the advice of enlightened outsourcing leaders such as Vineet Nayar of HCL, who says such ‘blasphemous’ things as the “employees are first, customers second!” (Ironically, this is also the mantra at Wegman’s, a very successful grocery store chain in the US). Modern retail must attract sharp, enlightened leaders just like the MNCs and the big outsourcing companies do. They must also invest in their employees at every level to achieve the efficiency that modern retail business models require. This might seem crazy, but it really pays off. There is growing evidence that employee satisfaction, profits and customer satisfaction are all correlated.

A crucial component of supply chain operations is labour. Non-availability of the right kind of labour can paralyze operations. The availability of quality skilled labour whether in the cities or rural areas of the country does not exist. Often, companies hire and train labour intensively and, they are switched over to different field. In addition, the industry is plagued by gender-ratio asymmetry. Indian warehouses, in particular, suffer from an acute scarcity of female labour due to the stigma attached to working women in conservative sections of Indian society. The issue of unavailability of quality, trained labour in cities will remain a festering issue in the logistics industry for some time to come. It stems from and melds with the basic

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23 CII newsletter, 23 Jun 2010
economic problems of the working classes who have to return home during the harvest season to help their families reap the crop. Their assistance ensures economic and food security for their families for the rest of the year.

**High Cost of Real Estate**

The legendary three key factors to successful retailing are “Location, Location and Location.” But it is more than just where the store is located. Efficiency in retail is built on big stores and large distribution centres that can receive deliveries from big trucks and also process goods purchased in large quantities. Land of this nature is easy to find in the United States and not too difficult to get in Europe, but obtaining large pieces of real estate for hypermarkets in major cities or industrial real estate suitable for 100 acre distribution centres is not easy in India.

One cannot be successful in modern retail and achieve targeted costs by storing lots of inventory either. Every pallet of material requires to build 13 more square feet and investment of Rs. 13,000-Rs. 2,00,00 lakh more in a building. There are lots of other additional costs associated with storing merchandise too. The trade-off between holding and carrying cost is also a matter of great concern for organized retailers. These additional costs are acknowledged by most Indian retailers. What many don’t acknowledge or don’t work hard on is achieving the ability to flow through the slow movers as well as the fast movers. Most of the inventory in a retail business is tied up in the slow movers. That is how the retailers provide the consumer greater product choice in the stores. Driving this investment down takes precision both in planning as well as in execution. It is very important to keep in mind that the savings which flow through facility can make the business profitable.

**Procurement Cost and Pricing**

It is a well documented fact that the price Indians pay for many fruits and vegetables is higher as a percentage of the farmer’s cost than in most developed countries. It is also well documented that the farmers in India are
getting less as a share of the retail price than in most countries, so where is the money going? Middlemen? Well, yes, but not exactly.

There are certainly savings in cutting out the profits of the middlemen, but these are sometimes exaggerated. What is really important is for a modern retailer to replace the inefficient supply chain connecting the middlemen to the consumers of these items. A modern retailer needs a “smart”, modern transport network that can deliver goods to a store at a noticeable discount. This network needs to move freight in large, full trucks over much of the distance between the supplier's factory or the farmer's farm and the retail store. Relying on distributors or a manufacturer's local DC to supply products to the retailer's Distribution Centre (DC) or stores does not save money.

When people think of Wal-Mart and why they are so successful, they often talk about the incredible software systems that they possess. Their systems are not necessarily all that great compared to the best tools available. What is quite exceptional about the company, however, is the way they make decisions. Among most retailers, the merchants and store operations executives are unequivocally in charge. They call the shots. The IT and supply chain personnel are more like their subordinates, rather than business partners. However at Wal-Mart, this is not the case. The supply chain people have incredible influence over such decisions as replenishment quantities, whether or not a product is brought into a particular category, when the product will be marked down, etc. At Wal-Mart, the supply chain people have to think like merchants and supply chain professionals at the same time. The result is an operation that is extremely focused on one goal – the lowest price.

It is also regarded as important fact that culturally price is probably the first prerequisite for the Indian consumer. If a modern retailer is really going to pursue the masses, they may need to shift the power of their organization in the direction of the supply chain. Obviously, this won't work for all retailers. It is by no means an easy task to make sure you run your supply chain costs
at five percent. Five percent is a benchmark for a general merchant and the logistics cost as a percentage will increase if the value of your product is low. It takes years to bring your logistics cost as a percentage to a single digit. If western companies run their costs close to this, it’s only because they have spent years trying to perfect their model and they have now built what it takes to maintain the costs at that level. Fortunately for us, we can borrow their learning, implement it wherever applicable and of course, customize it to our home ground.

**Impact of Technology**

A large number of Indian companies are not be able to afford expensive systems of technology in retail and operations. Such companies to continue with basic methods of operations with excel spreadsheets — mapping of stock, locating stock and stock control, making it visible and manual labeling, to name a few operations. But as a company’s growth accelerates, it will of necessity, have to invest in automation, since only technology will enable a company to cope with large volumes, peaks and demands and the accuracy that is an inherent part of any large business.

The agri-businesses use information technology to varying degrees. The use of point of sale scanners are well known in retail. Uneven adoption of technology along the farm to retail chain, across firms, points to potential strategic advantages for some firms. IT based co-ordination and automation between firms for perishable supply chain is multi- million investments, so it is important to consider their value carefully in various processes like ordering, payment mechanism, scheduling of warehouse and delivery, control system for quality assurance, understanding and reacting consumer demand, selection of supplier based on speed and flexibility, stock outs and bullwhip effect. Perishable food products require time efficient supply chain, even if rapid delivery is costly. Supply variation due to biological cycle, weather effect, seasonality in agricultural production making the continuous information exchange more important in order to enhance supply chain responsiveness.
Role of 3 PL In Retail

As organized retail has to keep a sharp eye on its supply chain operations to arrest any steep slide in the business, large companies could hire well-known 3PL providers for greater efficiency and growth. The company would be able to use the transport network of the 3PL provider and get the benefit of riding on the back of a very large intellectual capital. It would also be able to use the service hubs of the 3PL provider and save money by using its volumes and expertise.

Small ‘do-it-yourself’ companies whose operations are confined to a specific region, would have to hire their own warehouses and also the services of a dedicated transport company which is capable of delivering stock reliably without any damage. Since most warehouses are on the outskirts of a city, the retailer will have to discover quick entries into the city. The retail company can also save money by understanding its fixed and variable costs, the key drivers and best practices of its business, analyze how distant its business is from those practices and also hire the services of a cheap consultant who can nudge its growth upward. Supply chain problems can make even a profitable and well-organized retail business turn belly-up, but with deep knowledge, skill and accurate implementation the only way for a business is up.

There were very promising reports few years back asserting that organized retail was finally here to stay in India. When customers just started getting excited at the thought of a wide variety of choice and huge price reductions, the economy hit its worse ever trough in decades. Organized retailers were forced to rethink their strategy. Worse, some of them had to shut shop, while others returned to their home countries.

Traditionally, many firms have been managing their logistics activities internally. Lately companies have realized that they need to focus their energy on managing core business activities, and hence exploring the possibilities of outsourcing logistics activities to third party logistics (3PL)
service providers. In developed countries, almost 90% of the logistics activities are outsourced and are managed by 3PL companies. Apart from bringing in much needed professionalism to the field, 3PL companies have economies of scale as they are able to pull demand across the customers. In developed market, global firms would like leading 3PL companies to go beyond the traditional role and play the role of fourth party logistics (4PL) companies that can integrate the capabilities, resources and technology so as to provide comprehensive supply chain solution to its customers.

Currently, the 3PL industry in India is still in its infancy. Two sets of companies have emerged in this field. One set of company involved in traditional transporters, shippers, warehouse service providers and freight forwarders, who want to offer value-added services and have potential to develop competency to become a 3PL company. The second set of service providers comprises international 3PL companies that have come to India along with their global MNC customer. For e.g. Mitsui and Co. take care of logistics requirement of Toyota24.

Presence of multi-party role in supply chain system of perishable food product makes it difficult for farmers to create multiple infrastructures which would enable them to reduce losses at such a big level. It is therefore, need of hour that the supply chain system must be taken care of and looked after by professional agencies having expertise in various components of supply chain system like transportation, cold logistics, cold storage, food processing, packaging etc.. This will constitute an effective third party logistics (3PL) for enhancement of quality of product as well as reduction in wastage of produce.

India's spend on logistics activities - equivalent to 13 percent of its GDP is higher than that of the developed nations (refer table-4.3). The key reason for this is the relatively higher level of inefficiencies in the system, with lower average trucking speeds, higher turnaround time at loading points and high

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cost of administrative delays being just a few of the examples. These inefficiencies have arisen over the years from a combination of a non-conducive policy environment, extensive industry fragmentation and lack of good basic infrastructure. India’s indirect tax regime discouraged large centralized warehouses and led, over time, to fragmentation in the warehousing sector. At the same time, the absence of a single logistics ‘champion’ (whether in form of a ministry or otherwise) in the government (or industry) led to a disintegrated approach to development of the sector. Extensive fragmentation meant the incapacity of industry players to develop the industry as a whole and poor support infrastructure, such as roads, power, equipments like fork-lifter and telecom, led to a situation where the opportunity to create value is limited.

<table>
<thead>
<tr>
<th>Country</th>
<th>Logistics Cost/GDP</th>
<th>Share of 3 PL in Overall Logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHINA, INDIA</td>
<td>13-15%</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>U.S.</td>
<td>9.9%</td>
<td>57%</td>
</tr>
<tr>
<td>EUROPE</td>
<td>10%</td>
<td>30-40%</td>
</tr>
<tr>
<td>JAPAN</td>
<td>11.4%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Table 4.3 **LOGISTICS COST**

Source: Skill Gap in Logistics Sector, KPMG Report 2007

The third party logistics (3PL) market in India is still in a relatively nascent stage. While multinational companies in all industries have been predominant users of these services, domestic majors in leading industrial sectors have also begun to follow the footsteps of their multinational counterparts, starting with outsourcing their basic logistics functions. Realizing the significant cost reductions and several other benefits gained by these companies, a large number of small to medium companies in all the industries are gearing up to use 3PL services for their logistic functions, resulting in tremendous potential for 3PL market in India. The Indian market is estimated at $90 billion and projected to burgeon to $385 billion by 2015. While the global market is growing at the rate of 10 percent, the 3PL (third-party logistics) market, which accounts for six percent of the total market, is
expected to grow at 16 percent and command 13 percent of the total logistics market by 2015.

This industry consists of both asset-based and non-asset based logistics service providers, ranging from freight forwarders to 4PL players. Currently, the total size of the domestic logistics industry is about Rs.2.44 lakh crore, with the transportation sector, including road, rail and sea freight, contributing Rs.2,19,655 crore.25

**Bullwhip Effect and Stock-out**

Many store in-charges often blame it on the competition giving out higher discounts / schemes / lower prices, or increased costs or lower 'demand'. With the extent of knowledge of potential market available the probability of the estimation of the potential footfalls /sales (shrinking market share) for a store in an area being way off the mark is low. Nor do the initial estimation of the costs (rent, manpower, electricity, etc) increase dramatically, to wipe out the initial estimation of the profits. It is also fair to assume that the shopping experience was not compromised. Nearly all the leading chains make it equally attractive for customers through value offers, discounts etc. So the only reason to be analyzed remains is lower 'demand'26. What is demand for a store? One of the most weighted factors determining demand is the potential flow of people into the store.

When the store is operational for considerable time, the flow of customers into the store is quite deterministic. Discounting a few external factors such as a new difficulty in approach to the store, social risks etc; can the demand in the store decrease?

Therefore, the key question to answer is, if all other external factors remaining unchanged, why does the flow of people into the store decrease?

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25 CII Institute of Logistics, Newsletter 29 Dec 2009.
26 Kiran Kothekar, ”Preventing the demise of a store”, storai,July-Aug 2009.
One of the primary reasons is the inconsistent availability of all the items that
shelf availability of all the items that he/she would like to complete his/her
shopping in a single visit. Unavailability of even a few items of her shopping
list is viewed as huge inconvenience as the customer has to make additional
trips to another store. If the unavailability, even if it is of different items at
different times, is experienced regularly, and if there is a nearby option, the
chances that he/she will try another store is very high. Most importantly, visit
to such stores being a frequent topic of discussion amongst women, not so
favourable word of mouth can urge a few more customers to reinforce their
experience and reduce their visits to the particular store. As the number of
such customers increases, the loss of customers for the store increases
exponentially.

As the customer flow decreases, the inventory turns decrease as the
inventory held is the same as before and the sales have decreased. Lower
inventory turns lock up the cash of the store. As inventory is not flowing as
was expected, the limited capital/ budget (for a category) gets tied up in
items not selling immediately. As forecasts are not accurate (suppliers
compete with each other for higher visibility and customer preferences
change), some items get stocked out and some items become surplus. To
provide better prices to customers, category managers buy in high volumes
to avail discounts. And if these now turn into slow movers, a huge chunk of
capital is now locked. (This was revealed during a study of a few stores and
warehouses and prevalence of situation was realized). A store will have 5 to
15 days of inventory though the supplying warehouse is one day away, and
even in these 15 days there will be some commodities that are stocked out
and some well above the 30 day level (in case of few frozen and ready to eat
perishable products).

With this limited budget now being stuck in not immediately selling items,
there is a high probability that the category manager will postpone the
buying of the stocked out items, or will compromise on another selling item.
Eventually this forced action leads to further unavailability. To release
capital, he has to get rid of the existing stock, and hence has to display the available range (some of which is not so popular anymore) in precious shelf space. Soon the volume of slow movers occupying the shelves increases giving the store an old, non vibrant look. This further dissuades customers from visiting. This vicious cycle can lead to the demise of the store.

On the other hand, 100 per cent availability of the potential / full range can increase sales significantly (with the effect being exactly opposite to that of the vicious cycle described).

Unavailability of moving items, from time to time, is at the root of this vicious circle. The easiest option to avoid unavailability is to have higher inventories. But higher inventory locks limited capital leading to postponement of buying of stocked out items. Also, higher inventory increases costs due to increase in cost of capital, obsolescence, forced discounts, damages, delay in promos, etc. This is the conflict that has been harassing the stores/ category managers continuously.

![Profit & Cost Optimization: Inventory Control](image)

Fig 4.2  **PROFIT & COST OPTIMIZATION: INVENTORY CONTROL**

Usually companies manage this conflict by moving from one side to the other as per the pressure of costs (finance department) and unavailability (sales pressure). This must be realized that optimization is a compromise and is not sustainable as the first instance of pressure from sales or costs
will result in shifting to one of the actions. And soon the oscillations will start again. It is now evident that the non-resolution of this conflict results in reduced realization of potential profits.

Hundred per cent availability at lower inventory (higher inventory turns) will surely prevent the commencement of the dreaded vicious cycle described above. Most importantly availability will increase sales. More sales from existing operating expenses will significantly increase profits, as the entire gross contribution of the additional sales adds to the bottom line. Retail companies with a gross contribution of 20 per cent, with increasing sales by 20 percent through 100 per cent availability, will double its profits (assuming current profit is at 3-4 per cent). Many experienced managers think this is easier said than done. The 'Theory of Constraints' Replenishment and Buffer Management solution coupled with correct implementation can ensure this state.

**The Buffer Management**

If the store is supplied only what it has sold and if the supplying warehouse does not have unavailability, the store will have 100 per cent availability. Even with this process the store can experience stock-outs if the initial inventory was not adequate to service the demand in the lead time of the supply. Hence a safe starting inventory for each item is maximum sales/ day replenishment lead time. The Replenishment Lead Time (RLT) is composed of the Ordering Lead Time (OLT) and the Transportation Lead Time. The OLT is the time between the consumption of the perishable item till it is ordered. Due to batching and administration cost considerations, the ordering is batched for a period of time. If orders are released daily, alternate day or once a week depending upon types of perishable product, the OLT will be one day/ two day/ 1 week. The TLT is time taken for actual transit and the waiting time for the incoming orders to be sufficient to fill the trucks (again batching). These considerations in OLT and TLT will mean a high inventory to be kept in the store, which does not serve the objective of the solution being described here.
If the store provides daily sales data, every day, the OLT is reduced to 1 day. Orders (daily sales) of all SKUs collected every day can suffice to fill the truck in a day or two depending on life and type of product. Usually stores are supplied from a nearby warehouse, which is not farther than 1 day transportation time away. Considering these factors, the RLT is now one day. The store can start with a safe inventory of 1-2 days. With due consideration to weekends and merchandising considerations, the safe starting inventory can be increased to 1-2 days of sales. It is now possible to claim that the store will have 100 per cent availability at low inventory of 1-2 days for highly perishable and up to one week for frozen /packaged/ processed food products.

The store provides daily sales data to the supplying warehouse and the warehouse supplies immediately as soon as the truckload is reached. (Order daily replenish frequently). The daily sales data can be provided through IT modules.

![Buffer Management Path](image)

**Fig 4.3 Buffer Management Path**

For efficient buffer management it is obvious that over a period of time, sales trends are bound to change. Rate of sales of some items will increase while for some it will decrease. The stock decided to be maintained (Buffer) in the store is divided into three equal zones of 33 per cent each. The bottom most from 0 per cent to 33 per cent is red, the next 33 per cent yellow and the last 33 percent green.
If the items remain in red for one full replenishment lead time, due to increase in sales, the stock level or buffer is increased by 1/3rd. Similarly, if the stock level is in green for over 2 replenishment cycles, the buffer is reduced by 1/3rd. This buffer level changing can be automated using a software tool. The buffer levels and their penetration (current stock level with reference to the 100 percent level) are visible to supplying warehouse. The items in red are expedited as they are in danger of getting stocked out.

The responsibility of dispatcher in the supplying warehouse is to look at the buffer reports of various stores every day morning (which comes sorted on penetration in to the buffer) and prioritize the dispatches as red, then yellow and green items.

The same solution is applied for the central warehouse and regional warehouse link. The key element for these links is that the material is not pushed to the next link, but replenished as per sales /dispatches to the next link / consumer. The central warehouse should follow the same with suppliers i.e. the suppliers should supply based on the daily sales data provided by the central warehouse.

Holding the inventory at the source/ central warehouse (and replenishing only what is sold to the next link) ensures that the material is held at the
point which has the highest accuracy of forecast. As by the principal of aggregation, the variation in demand from the various stores is averaged out at the central warehouse. This also allows prevention of the situation of having a stock out in one store and surplus in another (of an SKU).

It is evident that this solution eliminates the need for a forecast. A fairly approximate starting inventory level (for each SKU) is good enough to start with. The Buffer Management system will correct this level based on sales trends. Phase in- phase out of the SKUs for season/ promos is managed by reducing or increasing the buffers a lead time ahead of the event.

By using the Theory of Constraints Replenishment and Buffer Management solution it is not difficult to achieve near 100 per cent availability at very low inventories. The solution ensures 100 percent availability in a dynamic environment, while preventing locking of precious capital in not immediately selling stock. The released capital should be used to increase the range of the shop within existing category or adding new category. It is a proven fact that the footfalls in a shop with higher range and variety are much higher than in a smaller shops. This will increase sales and as the increase has come without increase in fixed costs, the profits increases dramatically.
4.4 OVERSEAS SCENARIO OF PERISHABLE RETAIL CHAIN

Even though the fresh produce sector has seen a proliferation of quality assurance systems emerge from different actors in supply chain, the retailers have emerged as driving force in defining quality and implementing a quality assurance system. This is due to market power arising from market concentration, a consumer gatekeeper role and a comparative advantage in logistics in European Retail market. 27

The retail industry coupled with leading supply chain skills in areas like demand and supply planning, sourcing and procurement, fulfillment operations, inventory management, store operations and supplier management and collaboration. Industry analysts like IDC and Gartner Group rank Accenture number one in terms of pioneering supply chain applications, like radio frequency identification (RFID) and electronic product codes (EPC).

Accenture's Supply Chain Centres of Excellence are located strategically around the world and support solution development, implementation and joint ventures to keep retailers on the cutting edge.

The experience and ongoing research has shown that high-performance businesses incorporate their supply chains into their business strategies. The supply chain can represent 40 to 70 percent of a retailer's operating costs, and may comprise half of all company assets. Supply chain management is becoming more and more complex. Diversity of store formats, expansion into new sales channels, and changing global supply sources are driving the need for optimal supply chain management. Customer demands are rising as well and to compete, retailers need to provide wider choice, better quality, improved service and convenience — all at lower cost.

27 Patrcia, Jean & Thomas, (2001); “Quality assurance in fresh produce Sector: A case study of European Retailers”; Selected paper, AAEA Annual Meeting, Chicago, IL August 5-8, 2001.
Excellent retail supply chain management revolves around understanding and balancing three key dimensions of availability, inventory and cost. Managing these trade-offs efficiently can result in supply chains that improve business performance and drive competitive advantage. At Spanish retail giant Zara, the supply chain is the business model. Rapid growth and profitability are clearly linked to an uncompromised approach to supply chain management that has delivered a world class three week "design to shelf" capability and fueled the company's 20 percent annual growth and profit margins. UK food retailer Tesco has developed continuous, within day, replenishment capabilities to underpin their fresh food offer and consistently deliver on-shelf availability of more than 98 percent. For these retailers, supply chain is a strategic differentiator that delivers a competitive edge. No longer just concerned about cost control, companies view supply chain as a key element of their business strategy. Today's supply chain leaders are working with their business partners to design, develop, move, store, sell and service their products with ever greater speed and economy. Now, more than ever, supply chains are regarded as sources of business value and competitive advantage.

Differentiated supply chain models are emerging to address different merchandise characteristics. Repeatable continuity products demand integrated and optimized replenishment and forecasting. Regardless of type, all supply chains need to be supported by effective core processes and capabilities.

Perishable products are high profile, potentially high profit products, but reaping their rewards requires special attention to supply chain details. For example Omaha Steaks28 (A fifth generation family owned business in small parcel direct shipper and retailer of gourmet foods which is largest in US)

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demonstrate how perishable supply chain is important to deal with the challenges of food security system, higher fuel costs, increased traffic congestion, intense retail competition and on-time delivery.

The importance of cold chain for perishable products has been outlined by Steve Brayant, Global Director of Cold chain Logistics at Ingersoll-Rand Climate control. The perishable products are initially treated with pre-cooling method to rapidly reduce from temperature at which they were picked, produced or processed to their appropriate storage and transport temperature. For e.g. In California agro-centres, the machine takes the core temperature of 20 pallets of lettuce from 75 degree to 32 degree in under 90 minutes. After pre-cooling, perishable enter a refrigerated warehouse, then ship-out on temperature controlled trailers by land and containers by sea or air. Shipment proceed to a refrigerated distribution centre, then to another temperature controlled truck or trailer and often another distribution sub-centre before they finally arrive to retail outlet. At retail outlets, they are maintained in back room cooler or refrigerated display case until bought by consumer. This SCM system is in practice since 1980 and present volume of container load is 35 million. He quotes that 40000 pounds of broccoli shipped from Xiamen, China to Cambridge, England with efficient cold chain logistics system only.29

Benjamin Milk, vice president of the International Association of Refrigerated Warehouses believes that the perishable logistics industry is becoming stronger day-by-day with modern challenges and new opportunities which are prompting 3PL companies to improve operations and boost efficiency.30

The Government of South Australia prepared guidelines to provide information and recommendation to enterprises involved in the handling, transport and distribution of perishable products to remote regions and


assist people working in the packaging, transport, storage and retail sectors, to consistently deliver quality products. The government ensures responsibility of people involved in perishable supply chain and prevents break in cold chain which may result in irreversible damage to the quality of foods. The efficiently designed supply chain patterns enable to meet food safety regulations and minimize deterioration and finally achieve maximum shelf life of the product.\(^{31}\)

Supply chain leaders develop robust basic processes and disciplines, and then add new and differentiating capabilities that drive supply chain excellence. These new capabilities enable leading retailers to transform and differentiate their supply chains. Creating change in an existing supply chain can be daunting. Given the breadth and depth of impact, virtually all areas of a business are affected. A study performed on a major Swiss retailer shows that sensor technology can significantly improve the management of perishable products. Even though, sensors introduce additional costs, they help to increase supply chain efficiency and thus the profit\(^{32}\).

Agri-food supply chain managers are concerned with quality, safety and weather related supply variability which requires time as well as cost-efficient supply chain which necessitated Frito-Lay, Inc., to use an IT system that includes hand-held computers operated by field staff (Applegate). Inter-firm information networks allow companies to manage supply sources and distribution network without owing them as done by Applegate and Gogan through continuous information exchange\(^{33}\).

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33 Victoria salin,(1998), “Information Technology in Agri Food Supply Chains”, International Food and Agr-Business Management review, Dec 14, 1998; Department of Agricultural Economics, Texas A&M University, Texas-77843-2124
3M India, with its presence in different segments of business and diverse range of products for more than two decades, could withstand the impact of slowdown. The Indian arm of the U.S.-based 3M Corporation had gone ahead with its expansion and invested Rs. 100 crore in setting up a research and development laboratory in Bangalore to develop products, especially for the Indian market, and in the manufacturing facility in Pune. The investment was in line with the U.S. Company’s commitment to India and its desire to expand its footprint in this country. The company was planning to establish its own warehouse in Chennai as all the imported products were received in Chennai. The company has 10 warehouses and logistics centres in various parts of the country.  

Within the countries of Mexico, Honduras, Guatemala, Nicaragua, El Salvador and Costa Rica there are components of the integrated cold chain that are fully functional, efficient and impressive. Likewise, there are components that are equally dysfunctional, primitive and unsanitary. Mexico and countries in Central America are located in a region of polar opposites and considerable dichotomy. Traditional cultural practices support and sustain the “open-air”, “popular” or informal markets and the movement of products without the benefit of refrigeration. In fact, it is estimated that over 50 percent of the perishable food products consumed in the region are done so outside of the refrigerated cold chain and without the benefit of refrigeration. At the same time, and at the opposite end of the spectrum, there are modern processing, cold storage and distribution facilities as well as sales outlets that are rapidly growing and providing consumers with safer and higher quality products from which to choose. For the most part, large scale cold storage and distribution facilities in Mexico and the Central American region are operated using modern management practices and using state-of-the-art programmes and equipment. These facilities tend to also be the first point of entry for imported products, a business venture which requires an extra level of diligence due to the inherent value of the goods being purchased and distributed throughout the countries. There are,

34 CII Newsletter 09 JUN 10 Ajay Nanavati, Managing Director, 3M India.
however, many smaller cold storage warehouses, or freezer boxes, available for rent and use by local retail or food service companies that lack adequate on-site storage. These smaller facilities, which tend to serve local production, are generally poorly managed and maintained, and represent a significant break in the integrated cold chain. Imported chilled and frozen perishable products are often subject to improper handling and storage upon arrival to market, resulting in possible food quality and safety concerns that typically get blamed on the exporter and tarnish the quality image of U.S. food and agricultural products when it is actually a local problem. Furthermore, the advancement of “best practices” and adoption of the latest technologies is of key importance to the development of efficient cold chain operations in developing economies, since without such improvements, the growth potential for U.S. food and agricultural exports will be severely constrained. An effective and efficient cold chain is important for all perishable products, not just those promoted by an individual commodity group or the collaborators. The scope of impact is broader than any single commodity or product. The Foreign Agriculture Service (FAS) towards global marketing strategy is defined as capacity building for integrated supply chain.35

35 Dr. Stephen Neel, “The Integrated Cold Chain in Mexico and Central America: Assessment Report”, 2006, Funded by The United States Department of Agriculture (USDA)