

**The Role of IT-Enabled Supply Chains on the Indian FMCG Market****Prof.Kameswara Rao Poranki** MBA.,PhD.,

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**Abstract**

*In the present globalized Marketing environment, the marketers has a cherished dream to capture a sizeable market share compared to his competitors. Particularly, in the Indian context there are innumerable opportunities for FMCG (Fast Moving Consumer Goods) industry that has high potential to garner rich returns to various companies. The researchers of this paper has focused on how to get the benefit of latest IT technologies in the retail supply chains with reference to C class towns at Tamil Nadu. The main emphasis in this paper was to identify the strategies followed by various FMCG companies to improve close customer relationships. To this end a study was conducted to know the role of IT usage to improve the performance of retail supply chains. This paper is exploratory and descriptive in nature, wherein much of the information about the existing supply chains has been extracted through interviews with the retailers and wholesalers of FMCG majors.*

**Originality/value:** We have made a suitable study on how these latest developments in IT is being used in FMCG sector in India particularly in supply chain management. We have taken some C class towns in Tamil Nadu of India for the purpose of this study by discussions and observation and mainly the companies like Dabur and HLL have taken for this study.

**Keywords:** BRICS, HLL, SCM, CRM, FMCG. QAD, ERP, VSAT and C&F etc

**Introduction**

It was interesting to note that a company called Future Supply Chain Solutions Ltd. which is situated in Mumbai, India believes that, there is a need for cutting-edge and contemporary supply chain management practices in India through implementation of global best practices, indigenized and best adapted for Indian conditions. Some of these practices are now a visible proof of supply chain modernization in India. This company identifies a network of Big Box logistics parks with Infrastructure, Technology & Automation, People, Systems & Processes and Knowhow; running in a seamless manner which has helped reduce Time-To-Market and Cost-To-Market and thereby help increase revenues and profitability of our customers. The researchers has taken the above company as an example and how they are helping the customers in improving supply chains and usage of IT.

We can define that the Supply Chain Management is a set of activities undertaken to promote effective and efficient management of supply chains. Out of those activities could be supplier partnership, physical movement of goods, meeting customer demands and information sharing throughout the

supply chain. However, the performance with respect to Supply Chains are related to estimation of customer needs, efficient and effective delivery, integration and collaboration throughout the supply chain, sharing of information and vision using IT as well as use of specialists for performing specific jobs across the supply chain. Therefore, we can understand that these practices of IT has a role on supply chain performance. It is important to note that **BRICS** is the acronym for an association of five major emerging national economies: **Brazil, Russia, India, China, and South Africa** ("New era as South Africa joins BRICS",2012). We need to know that BRICS members are all developing or newly industrialized countries, but they are distinguished by their large, fast-growing economies and significant influence on regional and global affairs; all five are G-20 members.( BBVA Research. 2012). According to the latest study of 2014, the five BRICS countries represent almost 3 billion people which is 40% of the world population, with a combined nominal GDP of US\$16.039 trillion (20% world GDP) and an estimated US\$4 trillion in combined foreign reserves ("World Economic Outlook". IMF. April 2013). As India belongs to BRICS, the Growth Competitiveness Index survey conducted by the Geneva-based World Economic Forum (WEF) for 2014-15 puts India at 71st position among 144 economies in its Global Competitiveness Report. (<http://www.weforum.org/>) The below figure tells us the status of India among BRICS in terms of its Global Competitiveness.

The Global Competitiveness Index 2014-2015	Global rank*
China	28
Russian Federation	53
South Africa	56
Brazil	57
India	71

Source: The Global Competitiveness Report 2014-2015  
 Note: \* 2014-2015 rank out of 144 economies

In India, a country which has diversity inculcated in its very nature of business – it is a challenge for FMCG companies to standardize their operations and incorporate technology in the very silos of their business model.

### Review of Literature

It is customary to know that, the reasons why information system or IT inventory records are inaccurate due to external and internal theft (Bullard and Resnik, 1983), unsalable (e.g. damaged, out-of-date, discontinued, promotional, or seasonal items that cannot be sold any longer) incorrect incoming and outgoing deliveries (Raman et al., 2001). There is some empirical evidence on the magnitude of these factors that cause inventory inaccuracy with the usage of IT in retail supply chains. According to survey data, internal and external theft, administrative errors and vendor fraud accounted for an estimated 1.8% of sales in the US retail industry in 2001, costing US retailers USD 33 billion (Hollinger and Davis, 2001). For US supermarkets, the NSRG survey (National Supermarket Research Group, 2001) estimates that internal and external theft, receiving errors, damage, accounting errors and retail pricing errors amount to 2.3% of sales. These figures only take into account the item value, but not any process related costs (e.g. for handling of damaged items). To our knowledge there is a limited amount of research that has been carried out to study the effect of inventory inaccuracy and usage of IT would improve the supply chain performance. Ganeshan et al. (2001) simulate the impact of forecasting error (among other parameters) on supply chain performance, but do not consider inaccurate inventory data as well as applications of IT in the retail supply chains. Location of goods takes into account that errors can occur at different points in the production process, e.g. at the beginning of the production process or closer to the end. The authors conclude that frequency of error has a consistent and dominant impact on the performance measures that they used in various

applications of information technology by various retail giants in US as well as in India. Inventory inaccuracy is eliminated by inventory counts which are conducted in regular time intervals. The authors use the amount of labor needed, the inventory level, the amount of past due demand and the percentage of late orders as performance measures. Krajewski et al. (1987) conclude that inventory inaccuracy as well as the usage of IT by the Global Supply Chain companies had less impact initially but there is a long-term impact on the performance than anticipated. Of the factors considered, a reduction in batch sizes combined with shorter setup times had the single most important impact on performance.

### **Traditional supply chains/distribution channels**

There is a saying that, if you want to succeed quickly, you need to be interdependent. This holds true for business houses also. Likewise, successful value creation needs successful value delivery. Therefore, there is a strategic importance for companies to manage their “value chains” effectively in order to establish a better long term relationship with their customers. As the importance of, marketing channels are sets of interdependent organizations involved in the process of making a product or service available for the use or consumption

*The Indian Scenario:* In India, the companies are using hybrid channels depending upon the different customer groups and regional diversities in which they might be operating. Most Indian manufacturers use a three-tier selling and distribution structure that has evolved over the years: distributor, wholesaler and retailer. Wholesaling is profitable by maintaining low costs and high turnover. Many wholesalers operate out of wholesale markets. India has approximately 4 million retailers, mostly family-owned or family run businesses.

*The Dynamic Business Model:* In recent years, there has been increased interest by companies in improving their distribution and logistics in their effort to address the fierce competition. Marketers are increasingly outsourcing some key functions in the distribution and logistics areas to courier and logistics companies and searching for efficient ways to reach the customers. Most fast moving consumer goods (FMCG) and pharmaceutical companies use Clearing and Forwarding agents for their distribution and each C & F agent services stockiest in an area, typically a state. It is also important to mention that duty structures vary among states for the same product, thus creating disparate pricing. In the recent years, there has been an emergence of mature channels of distribution and support for products such as computer hardware, software and peripherals, ranging from commodity products to high end IT equipment.

### **Methodology**

The main purpose of this paper was to study the existing distribution networks in the country by making an exploratory study of Dabur and HLL. The selection of these two companies was done arbitrarily keeping in mind that HLL has its strength in its unparalleled distribution network; and Dabur was selected, as it is one of the Indian companies, which has used information technology to integrate its disparate systems. The focus of the study was to identify the strengths of using information technology to make supply chain and customer relationship more suited to the needs of the company. Simple random technique has been employed in this research. This is because the homogeneous nature of the market. A sample of 250 retailers and 50 distributors was selected in the small towns of Tamil Nadu, such as Vellore and Ranipet out of 500 retailers and 120 distributors. The limitation of this study is that we couldn't find all the respondents as the duration for this project is limited. A questionnaire on the IT usage in ordering process was used. This was done to find out the relevance of IT-enabled supply chain as existing in the Class C category towns, which do not have the relevant, IT support infrastructure. Despite all talks about integrating information technology the actual penetration and usage of IT in relationship management or marketing still remains negligible.

**H<sub>0</sub>:** There is no significant usage of Information Technology by Dabur and HLL to make the Supply Chain efficient is still negligible in class C towns.

**H<sub>1</sub>:** There is a significant usage of Information Technology by Dabur and HLL to make Supply Chain efficient is on the growth in class C towns. (Alternate Hypothesis)

The research data was collected by our group of interviewers through questionnaires and personal interviews with the dealers and the retailers.

### **Status of DABUR**

Dabur is a very old FMCG company. Its main revenue is typically generated by the outbound logistics. Dabur's outbound logistics is very extensive: There are 29 factories where different products are manufactured and delivered to various parts of the country. The finished products are stored in six major warehouses. Dabur also has 47 C&F (Carrying & Forwarding) Agents. The scale of operations is such that the company dispatches 100 truckloads of goods every day from the 29 factories. These products reach to more than 750 large distributors all over the country through the C&F agents. According to Anil Garg, Head IT, Dabur India, decided to implement SAP's Advanced Planner and Optimiser (APO) to make Dabur's supply chain more efficient. He is telling that they are driving efficiency to Dabur's Supply Chain. When the management decided to make Dabur's supply chain more efficient, it was easier said than done. Given Dabur's vast product portfolio, its *supply chain was far more complex* than other FMCG companies in the country. The company has a diverse product portfolio with more than 800 SKUs spanning multiple 'shelf life'. The company also had a large fragmented front-end and seasonal products with significant sales skew. The company that was already running SAP ERP for many years now, decided to *implement SAP's Advanced Planner and Optimizer (APO)*. To ensure the accuracy of SAP APO, historical data was deconstructed to derive the baseline sales and impact of ATL/BTL inputs. The entire project was divided into different phases — diagnosis, design, build and implement, and finally run (go live). After the project went live in 2010, Dabur greatly benefited from SAP APO with perceptible business outcomes. For instance, post this deployment, lost sales opportunities which were accounted at about 6 percent were reduced to 3.75 percent; error forecast was reduced from 85 percent to 40 percent. The forecast accuracy increased from just 25 percent to over 60 percent. It also revealed that even as most of the MNCs have started sourcing their products from India, Indian companies are going global and are focusing on overseas markets like Bangladesh, Pakistan, Nepal, Middle East and CIS countries. India's leading ayurvedic drug maker and FMCG major, Dabur, has evolved a multi-pronged strategy to double its export turnover. The company plans to launch Dabur and Vatika globally in West Asia, Gulf Cooperation Council and the SAARC countries.

### **Status of HLL**

India's largest consumer goods company has a large distribution network comprising of 7,000 re-distribution stockists and 40 C & F agents. HLL's distribution network is recognized as one of its key strengths – that which helps reach out to its products across the length and breadth of this vast country. The need for a strong distribution network is imperative; since HLL's corporate purpose is to "to meet the everyday needs of people everywhere." HLL's interest in this disheartening trend is obvious. Hindustan Lever now possesses the resources and means to help modernize a dangerously lagging industry, as well as the ability to strengthen the quality, quantity and price of their supply. A strengthening of the nation's infrastructure allows HLL opportunities to increase the efficiency of their supply chain and bring their massive scale to bear on issues and opportunities. The insufficient agriculture sector has led the Indian government to drop outdated policies and provided HLL with the regulatory license to create positive change.

**IT enabled Supply Chain in HLL**

An IT-powered system has been implemented to supply stocks to redistribution stockists on a continuous replenishment basis. The objective is to catalyze HLL's growth by ensuring that the right product is available at the right place in right quantities, in the most cost-effective manner. For this, stockists have been connected with the company through an Internet-based network, called RS Net, for online interaction on orders, dispatches, information sharing and monitoring. RS Net covers about 80% of the company's turnover. Today, the sales system gets to know every day what HLL stockists have sold to almost a million outlets across the country. RS Net is part of Project Leap, HLL's end-to-end supply chain, which also includes a back-end system connecting suppliers, all company sites and stretching right up to stockiest. The FMCG sector has acquired many new consumers through better penetration using the smaller pack or the low unit price strategy; volumes are yet to rise significantly, though. But the real market growth could be a little better than what the research numbers show. For, Direct/Multi-level marketing, store brands and imported products are not necessarily captured by the market research agencies. And, the menace of unfair competition – counterfeiters, adulterators... could be taking away 5-10 per cent of the industry's turnover.

**The usage of CRM**

For any company understanding the buying behaviour has always been essential for developing consumer relationships. CRM view products as processes. Consequently, the customer does not receive value from the purchase itself, but from each exchange between customer and provider. As products are integral part of relationships, more and more companies are focusing on relationship development. CRM adds new dimensions to product differentiation.

HLL's scale enables it to provide superior customer service including daily servicing, improving their range availability whilst reducing inventories. By roping in consumers in the distribution channel, the FMCG behemoth is increasing its presence in the rural India, which offers opportunities for expansion. The Project was started in 2001, and already covers more than 5000 villages in 52 districts of Andhra Pradesh, Karnataka, Madhya Pradesh, and Gujarat, and is progressively being extended. The vision is to reach over 100,000 villages thereby touching 100 million consumers. Hindustan Lever Network (HLN) is the company's arm in Direct Selling Channel, one of the fastest growing in India today. It already has about 3.5 lakh consultants-all independent entrepreneurs, trained and guided by HLN's expert managers. HLN has already spread to over 1500 towns and towns covering 80 per cent of the urban population, backed by 42 offices and 240 service centers across the country. It presents a range of customized offerings in Home and Personal Care and Foods.

Dabur started online sourcing in December 2002 and has since then adopted both, Full Source and Quick Source solutions from Ariba. Its first sourcing project was to procure saffron from Kashmir, not an ideal place for a technology-driven process. Though there was not a great change in the prices, this was the first step in streamlining the purchasing process. Dabur works on two ERP systems. For the outbound logistics, it runs QAD ERP suite known as MFG/PRO. For manufacturing locations, there's BaaN. BaaN requires a central server. To fit so many locations, many of them situated in small and remote areas into a central processing system, Dabur needed a VSAT (Very Small Aperture Terminal) network. As with most companies, sales at Dabur peak towards the last 4-5 days of the month. If the companies were to depend on this kind of a central server architecture, which would be connected through VSATs, the network would be enormously overburdened during every month-end. However, the company never wanted to make the network a critical component in the automation of outbound logistics.

**CRM efforts in the FMCG sector**

With more and more companies trying to manage their operations, marketing efforts and consequently relationships with the motive to manage customers and distributors for a lifetime; the effort has become more focused towards involving the customer the and the distributors. Findings what the

customer wants or how he is reacting towards the company's sales promotion efforts requires building relationship with the distributors and the dealers. There has been much emphasis on integrating the various levels of the distribution or supply chain to increase the efficiency of decision-making and also developing greater accessibility in the value chain. As marketing efforts are becoming increasingly governed towards understanding not what the customer values today, but what he would value in the coming days land months-relationship management has emerged as a potential too to enable this.

### **Enhancing the customer delivery process**

There has been a growing concern and concentration to adopt IT to make marketing more dynamic. The FMCG sector was the early adopter of ERP packages. They were the first to jump into the ERP bandwagon. While the subsequent benefits that were derived, were certainly as those, which were expected, it has formed a strong and stable base of the current IT initiatives being pursued. ERP has also helped to bring in a sense of discipline in the various business workflows, besides establishing a level of efficiency in the transactions taking place across various locations. With this kind of standardization access to information has become easier and it has improved the transparency across various processes.

- **Supply Chain Integration:** The FMCG sector is growing fast and considerable importance is being given to the distribution network to improve the customer delivery process. FMCG companies are trying to extend the domain of their IT initiatives to encompass their business partners like suppliers and the distributors. Extending the reach with the distributor would enable the company to have greater interaction with him and also will help in making him feel an important part of the company. Efficiencies in inventories would generate better ROI for the distributor thereby strengthening the relationship with the organization. Building relationships with suppliers would enable companies to move gradually towards Vendor Managed Inventory, empowering distributors to control inventory at his level as well as the company level.
- **IT-Powered System** has been implemented to supply stocks to redistribution stockists on a continuous replenishment basis. The objective is to catalyze HLL's growth by ensuring that the right product is available at the right place in right quantities, in the most cost-effective manner. For this, stockists have been connected with the company through an Internet-based network, called RSNet, for online interaction on orders, dispatches, information sharing and monitoring. RS Net covers about 80% of the company's turnover. Today, the sales system gets to know every day what HLL stockists have sold to almost a million outlets across the country. RS Net is part of Project Leap, HLL's end-to-end supply chain, which also includes a back-end system connecting suppliers all company sites and stretching right up to stockists.
- **Out-of Home** consumption of products and services is a growing opportunity in India, as elsewhere in the world. Hindustan Lever is already the largest player in the hot beverages out-of-home segment, with over 15000 tea and coffee vending points. The company is expanding the network aggressively, in the education, entertainment, leisure and travel segments. HLL's alliance with Pepsi will significantly strengthen this channel.
- Dabur India is now toying with the idea of setting up call centers with toll-free numbers or interactive websites or both. "The problem of the consumers being too many and too scattered remains. But they do recognize that CRM is an emerging industry trend. And though the company has not yet decided on the medium to deploy consumer-end CRM, the effort would be to provide a platform to the consumer to get closer to the company and encouraging her to offer solutions, feedback and suggestions.

- **HLL** intends to harness the best out of its distribution channels through well trained employees and channel partners; a total of in access of 300,000 people in all. They are trained to market HLL products in 1,500 towns and thousands of villages. Under Project Dronacharya, the company imparts training to over 10,000 stockist salesmen on a regular basis. The company is pushing aggressively the concept of 'Lakme Salons' and *Lakme Training* aimed at providing high quality technical inputs in beauty care, hair styling and skin care to the beauticians and stylists.

## The Results

Whatever may be the secondary data and reports showing integration of Information technology at different tiers of the distribution networks to make the supply chains efficient, in the class C towns the usage of information technology is very little and in some places; it is not being used at all. In order to reap the benefits of Information Technology it becomes pertinent that the company should be able to integrate its various layers in the distribution network. The study was conducted on small towns of Vellore and Ranipet of Tamil Nadu, and as stated earlier the information was gathered by direct interaction with the retailers and distributors. The *Null Hypothesis* stating "The usage of IT by HLL and Dabur to make the Supply Chain efficient is still negligible in class C towns" is accepted. There is a lot to be done to improve the supply chains in smaller towns.

**Table-01: Integration of Information Technology in ordering process**

Type of Ordering Process Followed	Distributor Level %	Retailer Level %
Computer-enabled	05.33	-----
Manual phones	33.16	12.78
Through Company Agents	61.51	87.22

**Table-02: Integration of Information Technology in the billing system**

Type of Billing Process Followed	Distributor Level %	Retailer Level %
Computer-enabled	12.57	-----
Manual	66.33	22.63
Through Company Agents	21.10	77.37

**Table-03: Integration of Information Technology in building and managing relationship**

Techniques for Relationship Management Followed	Retailer Level %
Computer-enabled	-----
Distributors Agents	54.44
Through Company Agents	45.56

**Table-04: Usage of IT in managing inventories**

Type of Inventory Management Followed	Distributor Level %	Retailer Level %
Computer-enabled	---	-----
Random	53.14	89.74
Forecasting by Monthly sales	46.86	10.26

The distributors or dealers are having their own agents who visit the retailers and take orders from them. The small retailers located in the interiors of the city feel that the company does not pay much

attention to their demands as at times they are stranded with outdated and older packaged products. As the customer is aware of the promotional campaigns, he generally demands for the latest products, which give him the discount or some advantage in the purchase. Non-availability of the product leads to loss for the company and also creates dissatisfaction amongst the consumers. In order to reap the benefit of automation and supply chain management it is important for the FMCG sector to slowly take the smaller towns also in their fold and try to improve their reach by catering to the needs of the smaller retailers also. For building longer lasting relationship, it is important to build better relationship with smaller retailers in the Class C towns, as they are actually responsible for convincing the consumer to purchase a particular product. CRM is first and foremost a business strategy, one that helps company tighten its business practices across organizations while forging an ironclad connection with the consumer. It involves more than information technology.

### Conclusion

We are able to deduce that there is a growing need of integrating and devising strategies while implementing IT solutions in the retailer level as well as distributor level. In India there is a need to reduce the layers that exist in the channels of distribution and make them efficient in terms of carrying excess inventories and also more dynamically related to interpret consumer needs. As traditional distribution channels are still being followed the cost benefit cannot be transferred to the consumer. FMCG sector has the most unwieldy distribution structure and until it is transformed and restructured the benefits of IT in form of SCM and CRM cannot be translated into revenues. Therefore, the companies have to do lots of homework before facing the fierce competition of Global giants in the retail sector. There is a wider scope for academicians as well as industrialists to conduct thorough research on the Impact of Global Supply Chain Strategies on the Indian Market.

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