

INFORMATION TECHNOLOGY SOLUTION FOR RETAIL INDUSTRY SUCCESS

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Abstract

Globalization has had a reflective impact in shaping the Indian Information Technology Industry. Over the years we have witnessed the sectors like insurance manufacturing, finance, telecom, banking, and now currently the retail industry which have been the growth drivers for this sector. It is a known fact that the future growth of IT and IT enabled services will be fuelled and geared by these variables of sustainable energy, healthcare, energy efficiency, mobile applications and climate change. The vicinity of the potential future of the Indian IT industry sees a significant rise in use of technology adopted by the service providers which includes Indian and global target new segments to offer flexible solutions to its customers with optimum quality at affordable cost. To keep itself competent the sector has to grow, re-invent and strive

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through research and development by making new business models which will provide end to end solutions to its clients by building partnerships, transformation and global delivery to keep its momentum continuing in other sectors like automotive and healthcare as well. This paper aims to detail the IT Solution and its Applications used in Retail Industry.

Keywords: Information Technology, Retail Industry, Applications, IT Services, Retailers.

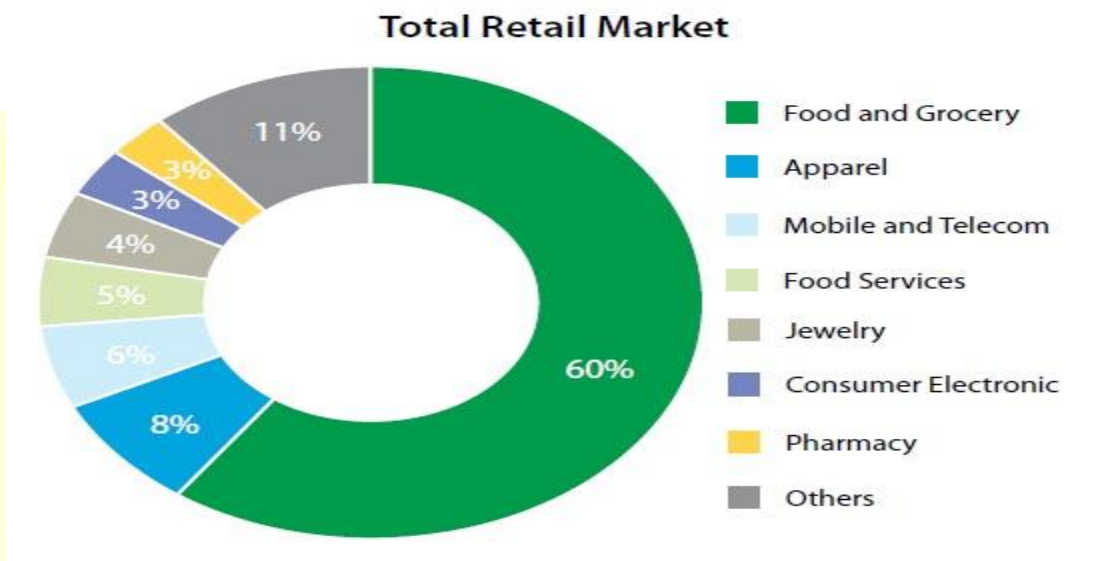
INTRODUCTION

Information technology (IT) industry in India has played a key role in putting India on the global map. IT industry in India has been one of the most significant growth contributors for the Indian economy. The industry has played a significant role in transforming India's image from a slow moving bureaucratic economy to a land of innovative entrepreneurs and a global player in providing world class technology solutions and business services. The industry has helped India transform from a rural and agriculture-based economy to a knowledge based economy. IT has made possible information access at gigabit speeds. It has made tremendous impact on the lives of millions of people who are poor, marginalized and living in rural and far flung topographies. Internet has made revolutionary changes with possibilities of e-government measures like e-health, e-education, e-agriculture, etc. Today, whether its filing Income Tax returns or applying for passports online or railway e-ticketing, it just need few clicks of the mouse. India's IT potential is on a steady march towards global competitiveness, improving defense capabilities and meeting up energy and environmental challenges amongst others. By 2016, IT sector is expected to generate revenues of USD 130 billion (NASSCOM) which will create a transformational impact on the overall economy. (As Cited in FICCI IT Report).

However, Technology usage in retailing is low in India today compared to levels achieved in advanced economies and varied in their use of IT infrastructure which ranges from simple point of sale (POS) systems to complex retail ERP once. Retailers like Wal-Mart and Metro have started implementing Radio Frequency Identification (RFID) technology which is expected to provide much better inventory visibility and hence facilitate efficient management of inventory. Retailers in India are still to adopt bar coding completely at all stores. The level of bar code usage is also largely due to retailers initiatives of printing these codes at their warehouses, unlike in developed countries where all the suppliers print bar codes. Most retailers do not have

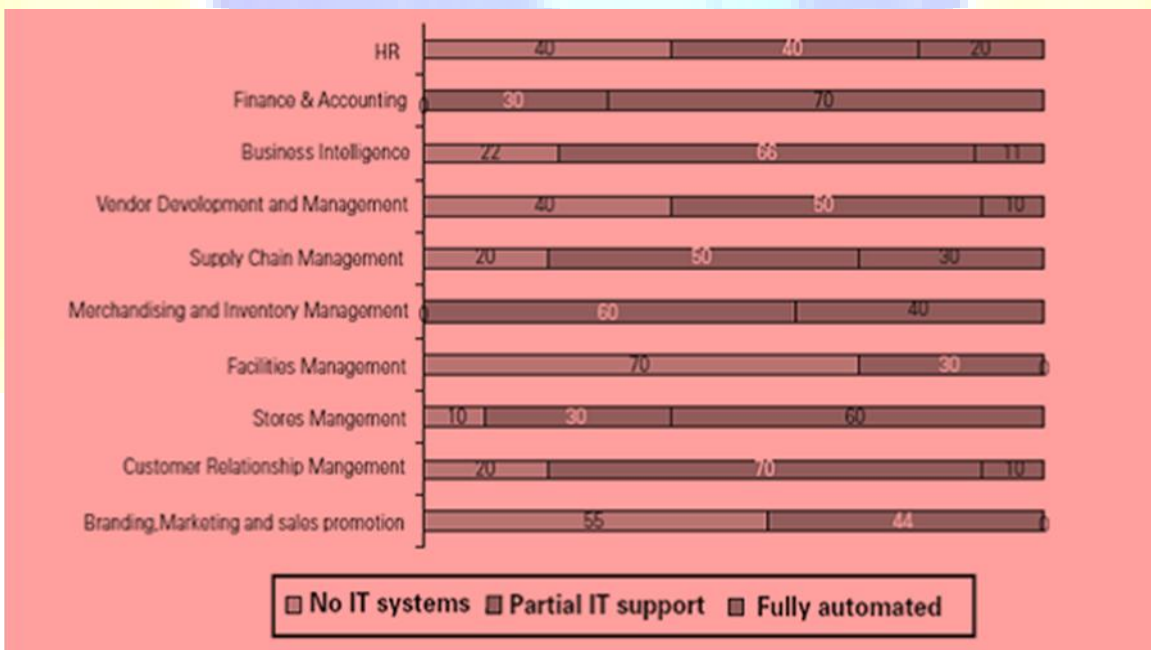
integrated IT systems today. Many retailers have few IT systems in the areas of supply chain management, vendor development, merchandising and inventory management. The annual spends on IT is quite negligible by the retailers, (S.Ramesh Babu.etal).

Figure 1: Composition of Retail Market



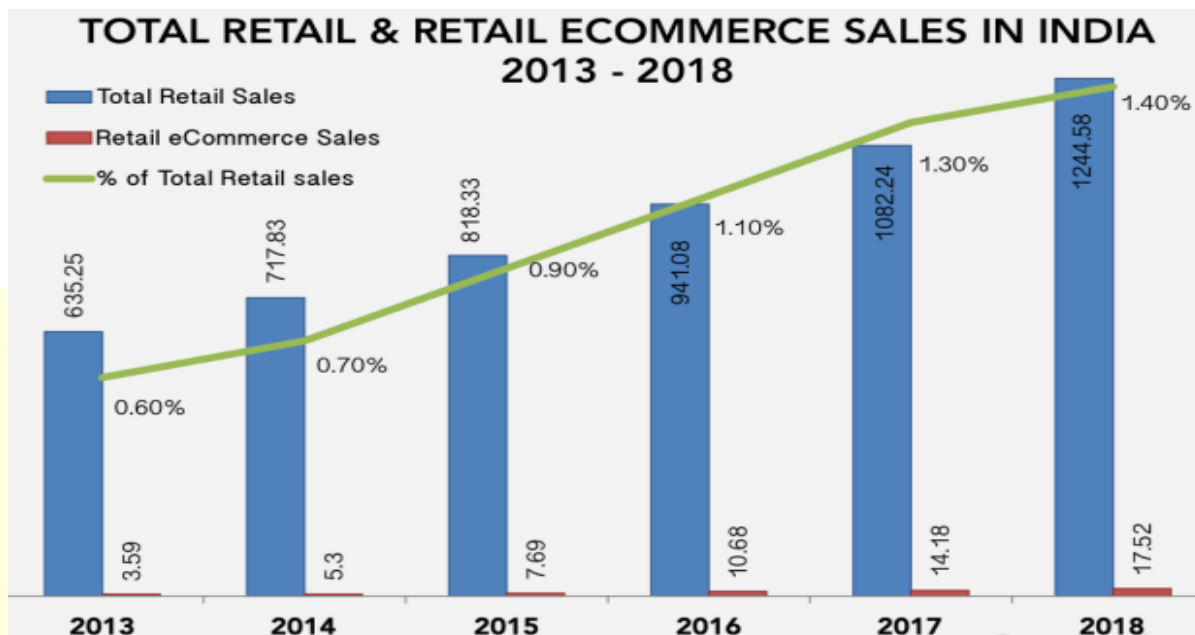
Source: www.India-briefing.com

Figure 2: Level IT usage among Indian Retailors



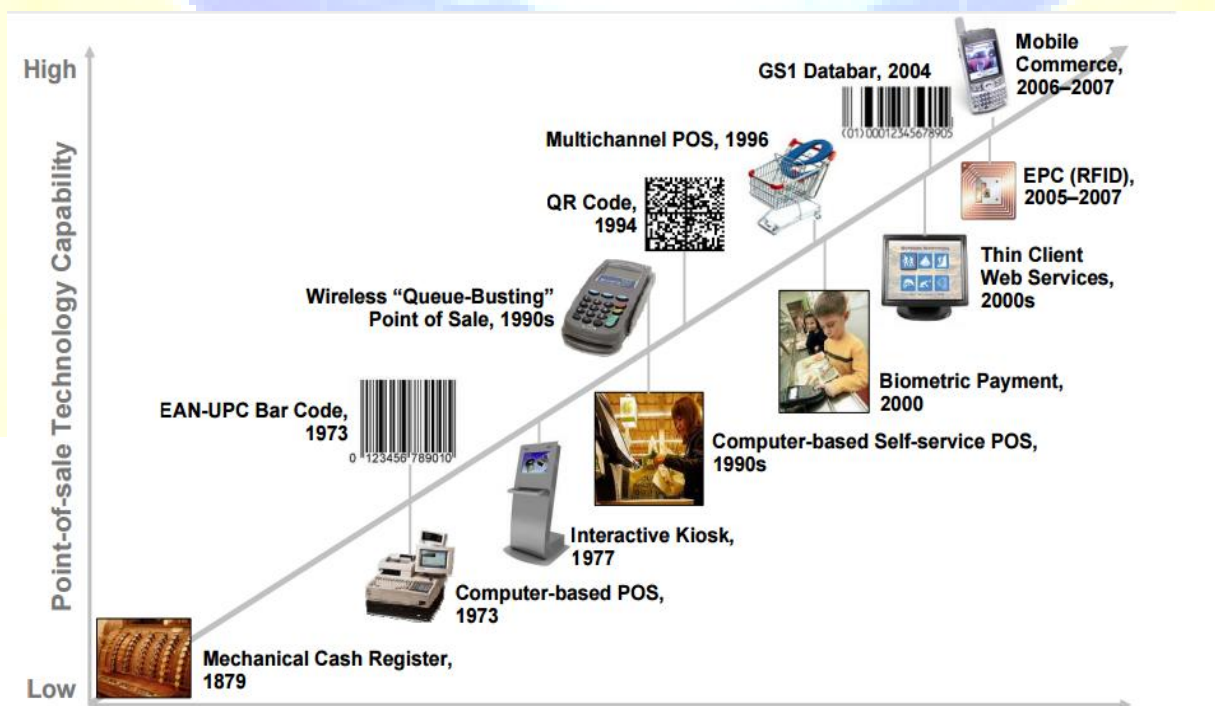
Source: KPMG Retail Survey

Figure 3: Future Prospective Sales in Retail Industry



Source: eMarketer, Dec 2014, Figures in USD Billions

Figure 4: Technology Innovation Keeps Retail Experience Expectations High



Source: Wikipedia, 2008; Food Service Solutions, 2008

ROLE OF INFORMATION TECHNOLOGY IN RETAILING

With the evolution of retail sector, technology adaption is increasing continuously. Modern retailers are relying on technology to manage the rapidly changing business scenarios and diverse customer needs. The sector is now focusing on technology optimization and effectiveness. Large players are investing in the technologies like Enterprise resource planning, Supply chain management, Customer relationship management Business intelligence and analytics, E-commerce, etc. This is helping retailers to become agile and responsive apart from being able to reduce inventory holding costs and thus be profitable in the long run. The smaller retailers are investing in technologies like bar coding and point of sale technologies. As most of the retailers are doing barcode scanning of complete merchandise in and out of the stores, merchandise availability levels at departmental stores and smaller stores are at comfortable levels.

IT involvement in Retail

- The use of technology aids the collection and transmission of information.
- To increase the company's ability to respond to the evolving marketplace through enhanced speed and flexibility.
- To collect and analyze customer data while enhancing differentiation.
- To work effectively, maintain stocks and improve business process.
- IT can speed up processes and deliver cost saving benefits to the company.
- Markets are getting more complex and retailers have to use advanced technologies to cope up with transactions involved.
- To have better impact on firm's competitiveness and add value.

Retail data can help in implementing a number of marketing decisions:

- Retail data can help to analyze the likely performance of new product lines and also measure its impact on the sales of other products.
- Retailers can also use EPOS (Electronic point of sale) to provide accurate and timely information about the buyers response to their promotional activities carried out at their stores.

- Extensive, timely and accurate sales data generated by EPOS systems can be frequently obtained and has become a crucial source of marketing information for retailers and supplier marketing departments.
- Retail data can help customers to enjoy the benefits of being well informed, which will also be beneficial for retailer, for a well informed customer, is potential business for them.

Today the customer is in absolute charge, where providing value to the customer has become a challenge for retailers. Customers want “value” in terms of not only price, ambience and appearance, quality, service, information but also selection, convenience, service and entertainment. Information technology (IT) helps retailers to manage costs and deliver better value to customers. The use of technology enhances the shopping experiences by providing convenience, better service speed, and value to the customer. The consumer research studies indicated that consumers are also willing to accept technology solutions in retail, especially those that address their most pressing issues of long lines at the checkout counters, lack of product information in the store, difficulties identifying where products are located in the store and out of the stock situations. Technology is being considered as an important tool in building and maintaining relationships.

TYPES OF TECHNOLOGIES USED IN RETAILING

One of the major reasons of the Wal Mart’s success is its investment in state-of-the-art information technology, includes:

- Front end scanners that track sales by stock keeping units(SKU) and supply on store shelves.
- Beaming of the store’s orders via satellite to a computer at its headquarters in Arkansas.
- Scheduling of shipments to its distribution centres by vendors.
- Movement of merchandise from distribution centre to Wal Mart trucks.
- Shelf placement within 36 hours of store’s order and
- Communication via satellite about vendor discounts on merchandise.

Table1: Benefits of Information Technology in Retail Industry

| Cost and Productivity Benefits through IT | Marketing Benefits through IT |
|--|--|
| <ol style="list-style-type: none"> 1. Efficiency in time with increase in transportation speed 2. Reduction in operation costs 3. Improvement in administration-handling invoices etc. 4. Shorter lead time 5. More efficiency in stock holding 6. Possible to make price modifications whenever necessary 7. Reduction in manpower | <ol style="list-style-type: none"> 1. Improved data handling-forecasts of stock, promotion activities. 2. Faster distribution systems cycle 3. Benefits by improved trading partner relationships 4. Facilitate quicker responses to changing market conditions 5. Passing on benefits of efficiency in operation to consumers 6. Able to build database on consumer loyalty 7. Faster movement of merchandise with improve data handling, so more selling space with reduced stockholding. |

It helps to develop and fine tune organizational changes with improvised retail logistics which helps to reduction in lead times in delivery and retailer inventory holding, also use of Information Technology to measure staff performance leads to cost reductions in terms of transactions and performance levels. IT revolution had redefined and refocused retail industry in terms of customer service, policies and brand establishment by saving a great deal of time to provide extraordinary services to their clients.

1. Bar Code technology



Source: www.wasbarcode.com



Source: www.gsluk.or

2. Radio Frequency identification Device



Source: EPCGlobal/Checkpoint Systems

3. Electronic Shelf Signage



Source: www.bloomberg.com

4. Interactive Kiosks



Source: www.kioskmarketplace.com

5. Body Scanning



Source: www.etcntr.org

Source: 3dprintingindustry.com

6. Point of Sale Technologies



Source: www.phostersoft.com

Source: www.slideshare.net

Conclusion:

We can witness that over the years there are many applications of technology being used globally and also these applications have also deeply impacted retailing technology. Retailers can enhance their business by the use of IT to carry out basic functions like to maintain customer information, for generating management reports, keep record of sales data item wise, for stock control, purchases and maintain accounts. Retailers have to differentiate their customer service from their competitors in a unique and innovative way as to serve and cater to their potential customers with the help of latest cutting edge technology.

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