Role of Information Technology and ECRM in 21 st Century Retail Organisations

Article · February 2014

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Role of Information Technology and ECRM in 21st Century Retail Organisations

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*Abstract--*The rapid advancement in the Information Technology has accelerated the support of Customer Relationship Management (CRM) system. The proposition of this research is to find out the economic feasibility of e-CRM in selected retail outlets of Delhi/NCR region. Customer relationship management (CRM) system consists of the processes, a company uses to track and organize its contacts with its current and prospective customers. CRM software is used to support the processes viz. information about customers and customer interactions can be entered, stored and accessed by employees in different company departments.

While the term CRM generally refers to a software-based approach to handling customer relationships, most CRM software vendors stress that a successful CRM effort requires a holistic approach. CRM initiatives often fail because implementation was limited to software installation, without providing the context, support and understanding for employees to learn, and take full advantage of the information systems. CRM can be implemented without major investments in software, but software is often necessary to explore the full benefits of a CRM strategy.

e-CRM, concept is derived from E-commerce. It also uses net environment i.e., intranet, extranet and internet. Electronic CRM concerns all forms of managing relationships with customers making use of Information Technology (IT). e-CRM is enterprises using IT to integrate internal organization resources and external marketing strategies to understand and fulfill their customer's needs. Comparing with traditional CRM, the integrated information for e-CRM intra organizational collaboration can be more efficient to communicate with customers.

I. INTRODUCTION

Retail is the sale of goods and services from individuals or businesses to the end-user. Retailers are part of an integrated system called the supply chain. A retailer purchases goods or products in large quantities from manufacturers or directly through a wholesaler, and then sells smaller quantities to the consumer for a profit. Retailing can be done in either fixed locations or online. Retailing includes subordinated services, such as delivery.

The term "retailer" is also applied where a service provider services the needs of a large number of individuals, such as a public utility, like electric power.

Shops may be on residential streets, streets with few or no houses or in a shopping mall. Shopping streets may be for pedestrians only. Sometimes a shopping street has a partial or full roof to protect customers from precipitation. Online retailing, a type of electronic commerce used for business-to-consumer (B2C) transactions and mail order, are forms of non-shop retailing.

Shopping generally refers to the act of buying products. Sometimes this is done to obtain necessities such as food and clothing; sometimes it is done as a recreational activity. Recreational shopping often involves window shopping (just looking, not buying) and browsing and does not always result in a purchase.

Retail comes from the Old French word *tailer* (compare modern French *retailler*), which means "to cut off, clip, pare, divide" in terms of tailoring (1365). It was first recorded as a noun with the meaning of a "sale in small quantities" in 1433 (from the Middle French *retail*, "piece cut off, shred, scrap, paring").[1] Like the French, the word *retail* in both Dutch and German (*detailhandel* and *Einzelhandel*, respectively) also refers to the sale of small quantities of items.

A marketplace is a location where goods and services are exchanged. The traditional market square is a city square where traders set up stalls and buyers browse the merchandise. This kind of market is very old, and countless such markets are still in operation around the whole world.

In some parts of the world, the retail business is still dominated by small family-run stores, but this market is increasingly being taken over by large retail chains.

Retail is usually classified by type of products as follows:

- *Food products*
- *Hard goods or durable goods ("hardline retailers")* - appliances, electronics, furniture, sporting goods, etc. Goods that do not quickly wear out and provide utility over time.

▪ *Soft goods or consumables* - clothing, apparel, and other fabrics. Goods that are consumed after one use or have a limited period (typically under three years) in which you may use them.

II. TYPES OF RETAILERS BY MARKETING STRATEGY:

i) **Department stores -** very large stores offering a huge assortment of "soft" and "hard goods; often bear a resemblance to a collection of specialty stores. A retailer of such store carries variety of categories and has broad assortment at average price. They offer considerable customer service.

ii) **Discount stores -** tend to offer a wide array of products and services, but they compete mainly on price offers extensive assortment of merchandise at affordable and cut-rate prices. Normally retailers sell less fashion-oriented brands.

iii) **Warehouse stores -** warehouses that offer low-cost, often high-quantity goods piled on pallets or steel shelves; warehouse clubs charge a membership fee;

iv) **Variety stores -** these offer extremely low-cost goods, with limited selection;

v) **Demographic** : retailers that aim at one particular segment (e.g., high-end retailers focusing on wealthy individuals).

vi) **Mom-And-Pop** : is a retail outlet that is owned and operated by individuals. The range of products are very selective and few in numbers. These stores are seen in local community often are family-run businesses. The square feet area of the store depends on the store holder.

vii) **Specialty stores:** A typical specialty store gives attention to a particular category and provides high level of service to the customers. A pet store that specializes in selling dog food would be regarded as a specialty store. However, branded stores also come under this format. For example if a customer visits a Reebok or Gap store then they find just Reebok and Gap products in the respective stores.

viii) **General store** : a rural store that supplies the main needs for the local community;

ix) **Convenience stores:** is essentially found in residential areas. They provide limited amount of merchandise at more than average prices with a speedy checkout. This store is ideal for emergency and immediate purchases.

x) **Hypermarkets:** provides variety and huge volumes of exclusive merchandise at low margins. The operating cost is comparatively less than other retail formats.

xi) **Supermarkets:** is a self service store consisting mainly of grocery and limited products on non food items. They may adopt a Hi-Lo or an EDLP strategy for pricing. The supermarkets can be anywhere between 20,000 and 40,000 square feet (3,700 m^2). Example: SPAR supermarket.

xii) **Malls:** has a range of retail shops at a single outlet. They endow with products, food and entertainment under a roof.

xiii) **Category killers or Category Specialist:** By supplying wide assortment in a single category for lower prices a retailer can "kill" that category for other retailers. For few categories, such as electronics, the products are displayed at the centre of the store and sales person will be available to address customer queries and give suggestions when required. Other retail format stores are forced to reduce the prices if a category specialist retail store is present in the vicinity.

xiv) **E-tailers:** The customer can shop and order through internet and the merchandise are dropped at the customer's doorstep. Here the retailers use drop shipping technique. They accept the payment for the product but the customer receives the product directly from the manufacturer or a wholesaler. This format is ideal for customers who do not want to travel to retail stores and are interested in home shopping. However it is important for the customer to be wary about defective products and non secure credit card transaction. Example: Amazon, Pennyful and eBay.

xv) **Vending Machines:** This is an automated piece of equipment wherein customers can drop the money in the machine and acquire the products.

xvi) **Automated Retail stores** are self service, robotic kiosks located in airports, malls and grocery stores. The stores accept credit cards and are usually open 24/7. Examples include ZoomShops and Redbox.

xvii) **Big-box stores** encompass larger department, discount, general merchandise, and warehouse stores.

xviii) **Convenience store -** a small store often with extended hours, stocking everyday or roadside items;

xix) **General store** - a store which sells most goods needed, typically in a rural area;

"Sharpening Skills.....
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International Journal of Emerging Technology and Advanced Engineering
Website: www.ijetae.com (ISSN 2250-2459 (Online), Volume 4, Special Issue 1, February 2014)
International Conference on Advanced Developments in Engineering and Technology (ICADET-14), INDIA.

III. GLOBAL RETAIL SCENARIO

[2.]Retailing has played a major role in the global economy. In developed markets, retailing is one of the most prominent industries.

In 2008, the US retail sector contributed 31% to the GDP at current market prices. In developed economies, organised retail has a 75-80% share in total retail as compared with developing economies, where un-organised retail has a dominant share.

Leading global retail players by revenue

Sr. No.	Company name	Country	Banner sales 2007E (In (US$ million)	No. of outlets, 2007
1	Wal-Mart Stores	US	395,305	7,331
2	Carrefour	France	142,229	13,419
3	Tesco	UK	103,573	3,750
4	Metro Group	Germany	102,942	2,541
5	Seven & I (ii)	Japan	84,375	22,590
6	Kroger	US	73,633	3,672
7	AEON (i)	Japan	73,416	14,803
8	Target	US	71,125	1,591
9	Schwarz Group	Germany	70,969	8,575
10	Costco	US	69,704	518

Note: Banner consists of food and non-food sales
Source: Planet Retail

Global retail sales was estimated to be around US$ 12 trillion in 2007; however, in 2008, the slowdown in the global economy, especially in the US, and credit crunch, decreased consumer spending. On a global level, the economy performed robustly till 2007, but the US crisis spread over to Europe in early 2008, and its impact was felt in the Asia-Pacific region by mid-2008.

India has the highest number of retail outlets in the world at over 13 million retail outlets, and the average size of one store is 50-100 square feet. It also has the highest number of outlets (11,903) per million inhabitants. The per capita retail space in India is among the lowest in the world, though the per capita retail store is the highest. Majority of these stores are located in rural areas.

Total number of retail outlets in select countries (in '000)

Country	2002	2003	2004	2005	2006	2007
India	11,689.0	12,049.8	12,408.8	12,770.8	13,122.1	13,448.5
China	5,463.7	5,208.1	4,854.1	4,635.7	4,503.2	4,496.3
Brazil	976.1	1,006.6	1,071.5	1,122.9	1,157.6	1,188.3
Russia	437.5	447.4	456.3	466.0	475.1	480.8
USA	923.5	923.7	934.3	945.8	946.5	946.2
UK	314.6	312.0	308.3	302.1	298.3	295.1
France	416.9	411.7	409.2	407.1	406.7	406.5
Germany	288.0	286.2	284.2	283.0	281.8	281.8

Source: Euromonitor

The private final consumption expenditure (PFCE) and GDP growth are indicative of the growth in the retail sector. In the past consumers, especially young consumers in the age group of 15-34, increased their consumption expenditure with an increase in their earnings; these young consumers totalled around 400 million and constituted 35% of the total population. Due to the consequent boom in the Indian retail sector many foreign and Indian players entered the Indian retail sector.

Retail sales growth vis-a-vis key macro economic indicators
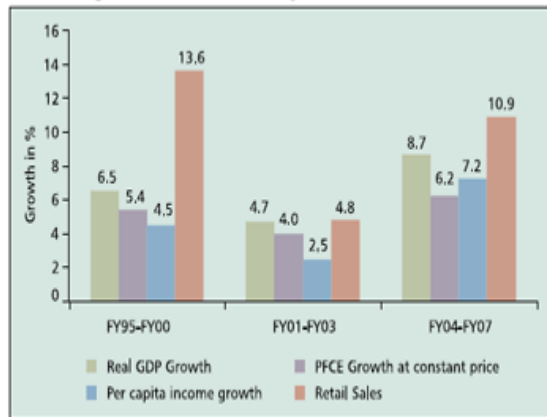
Source: ICRIER, CSO, D&B Research

The chart above shows that during FY95-FY00, the PFCE (constant prices) increased by 5.4% per annum. Later on, from FY01 to FY03, PCFE declined to 4.0%. Again during FY03-FY07, it went up to 6.2% per annum. During these time periods, the retail sales, the per capita income, and the real GDP growth followed a similar trend as the PFCE, which made it evident that there is a positive correlation between real GDP and PFCE on the retail sector. During FY08, the PFCE as a percentage of GDP at factor cost at constant prices remained very high at 62.2%; hence, the overall retail sector growth received a major impetus during this period.

Size of the Indian retail industry

In 2007, the total Indian retail industry was valued at Rs 13,300 billion (estimate), and the organised segment constituted 5.9% of the value at Rs 783 billion. In the segment, the clothing and accessories sales had a majority share of 38.1% followed by the food and grocery segment at 11.5% and electronics segment at 9.1%. The organised retail industry grew at a CAGR of 33% during 2004-2007. Even though the organised retail segment has a minuscule share in the total industry, it has enormous potential considering the rising urbanisation, the efficient supply-chain, the readily-available retail space, and modern technology, which help in reducing consumer prices to a great extent.

Indian retail market (at current market prices)

Segments	Total retail market (Rs billion)			Organised retail market (Rs billion)		
	2006	2007	Share in 2007	2006	2007	Share in 2007
Clothing & accessories	1,135	1,313	9.5%	214	298	38.1%
Food and grocery	7439	7,920	62.0%	58	90	11.5%
Footwear	137.5	160	1.1%	52	77.5	9.9%
Electronics	481	575	4.0%	50	71	9.1%
Catering services (F&B)	570	713	4.8%	39.4	57	7.3%
Home & office improvement	406.5	455	3.4%	37	50	6.4%
Telecom	216.5	272	1.8%	17.4	27	3.4%
Entertainment	380	456	3.2%	15.6	24	3.1%
Jewellery	602	694	5.0%	16.8	23	2.9%
Books, music & gifts	133	164	1.1%	16.8	22	2.8%
Watches	39.5	44	0.3%	18	21.5	2.7%
Pharmaceuticals	422	488	3.5%	11	15.4	2.0%
Beauty & wellness	38	46	0.3%	4	6.6	0.8%
Total	12,000	13,300		550	783	

Source: Images India Retail Report

Furthermore, with the entry of big foreign players, the Indian organised retail market has become more competitive in terms of implementing newer business models on the operational format, and pricing, and in terms of efficiency. The organised retail sector will largely benefit in terms of productivity and growth if sectors like agriculture, food processing, and textile are encouraged further.

Role Of Information Technology In Retailing

Information technology is the backbone of modern retailing. The traditional retailing was easier to manage because of its size, scope and uncompetitive nature; and usually the shops were managed by the owner-manager. But the modern retail formats, which are superstores and large chains owned by large organizations, are difficult to manage without an efficient and reliable IT system in place.

Technology proves beneficial in creating and maintaining customer relationships. Analysis of data collected at the retail point of sales helps understand preferences, buying habits, spending budgets, family needs of an individual customer. Relationships are maintained by utilizing IT for periodical e-mailing, SMS, greetings, promotional letters and personal calling.

Retailing growth has demanded IT deployment to broaden its arena and overcome challenges namely Business Optimization, increasing SCM efficiency, innovating shopping experience and other manual limitations.

IV. ADVANTAGES OF IT IN RETAILING

i)   Improving efficiency of Supply Chain
ii)   Improving the Shopping experience
iii)   Avenues for IT Investment

i. Improving Efficiency of Supply Chain

Retail and CPG companies are facing a number of challenges due to increasing complexity of supply chains caused mainly by offshoring of manufacturing. Increased lead times, demand variability and supply disruptions are forcing companies to pile inventories thus leading to opportunity losses and higher cash conversion cycles. Demand forecasting has assumed critical significance in managing supply chains efficiently. Having an agile supply chain network that seamlessly connects demand, supply and product remains the top priority for retailer and consumer companies.

ii. Improving the Shopping Experience & Business Optimization

These investments comprises the value added services being provided by disperse retailers like the CRM packages by firms to add value to their existing products. These types of investments may turn out most difficult to measure of all especially if the company lacks experience in using customer data to increase customer profitability. An instance that can be referred is Fabmall's e-commerce website tracking customer preferences and built-in business intelligence also sending suggestions to customers based on their earlier purchases.

iii. Avenues for IT Investment

Customer relationship management: Indian retailers are aggressively investing in Customer Relationship Management Solution for retaining; acquiring customers, brand management, to analyze consumer-buying behaviour, buying patterns of 'loyalty cardholders', integration of multi-channel sales and others. Few feasible CRM solution packages are namely Talisma, Siebel, SAP, Retek CRM and Sales Logix. Retailers like Pantaloon, Café Coffee Day, Barista and Shoppers Stop are some to deploy referred CRM packages.

V. BUSINESS INTELLIGENCE TOOLS

These comprises tools namely Data warehousing, data mining, Online Analytical Processing (OLAP) facilitating a wealth of information in terms of sales and behavioral analysis to retailers. Business Intelligence tools are identified to be very versatile that analyze sales data from the POS, determines trend of sales for the categories and sub-categories of merchandise sold from disperse stores that enable the retailers to understand the frequency of sale, geographical spread of sales, types of sold merchandise and thus provide 'what if' analysis specially for projected sales and price changes . This would lead to increase in sales.

RFID Currently RFID is profitably being used in retail firms of developed countries primarily in two sections namely in supply chain, warehouses and Retail front. It ensures individual articles tagged by RFID enable quick billing and to ensure automated stock keeping.

B2B Software

B2B software is well suited for multi-channel retail business consolidating sales via Internet, mail catalog, phone/fax and point-of-sale (POS) terminals installed in physical shops.

The concept with multi-channel business is not new. However, the latest technological vehicles like Web/Internet, created a new possibilities for retailers indeed. The brick-and-mortar business owners and mail catalog retailers now have much more opportunities to expand and reach wider clients nationally and internationally using such tools as Web stores and shopping portals. This has created new challenges for efficient business management and consolidation of all sales/marketing channels to save the operational cost. That's why companies start looking for new multichannel retail software solutions that could help manage the business and increase productivity.

Business Optimization Software

Product pricing software: Significant prospects of profitability can be achieved with the advent of sophisticated price optimization / revenue management techniques offer. Currently two US-based software product vendors Demand Tech and Khimetrics have come up with products to optimize the prices of individual products. India will introduce such products in the coming years as retailers have started understanding the features of the products and their deployment in pricing decision-making.

Merchandise Optimization Software

Merchandise planning is one of the biggest challenges that any multi store retailer faces. Getting the right mix of product, which is store specific across your organization, is a combination of customer insight, allocation, and assortment techniques.

Our domain experts understand this and help clients in making the right forecast by SKU and ensuring that the consumer finds the right product, at the right place, right time and right price. Working closely with our technology partners, we guide our clients through the entire merchandise planning lifecycle in a systematic and integrated way. We support end-to-end merchandising functions including optimizing merchandizing assortments, allocating products, providing planning and analytics capabilities and lastly, providing solutions to maximize value from promotions and price management.

The benefits of Merchandise Planning accrued by our clients include reduced unplanned discounts and promotions, properly utilized floor space, fewer store transfers, and increased turns throughout the chain helping the bottom line immensely.

Mobile computing

Mobile computing has facilitated employees in tracking the inventory and provided customers an innovative shopping experience through integration of PDAs in individual shopping carts that would provide information on the products. This use has optimized inefficiencies in inventory and supply chain sections and lead to cost minimization. A similar WAP (Wireless Application Protocol)-enabled mobile phones are catching attention today in Retailing sectors.

Customer Lifetime Value (CLV)

The variety of activities plays together an important role in bringing customers repeatedly and in turn to generating positive word from his/her mouth and increase new footfalls into the store. This leads to the development of an enthusiastic set of customers who can be approached to convey all new developments, arrivals, events and promotions. Data mining technique used in CRM provides insights and knowledge about most valuable customers to the retailers which result in maximum sales. Based on information we can correlate the Pareto's Principle which talks about generating 80% of sales from 20% of the customers. This can only happen if the retailer has the 20% as its most profitable customers and not just normal customers. This completely depends upon the kind of business the retailer is into and there is nothing sacrosanct about this understanding .

Customer Touch Points

Customers are moving between traditional and online channels with greater frequency when dealing with organisations. eCRM systems support multichannel touch points with the company and a key challenge is providing a consistent experience for the customer. Offering multiple interaction paths scores convenience points for customers but this benefit quickly evaporates if the customers are forced to repeat themselves because one part of the organisation is not synchronised with another.

Customers accustomed to real time information and responses must be catered for when they switch to an alternative channel. It shouldn't in principle make any difference whether a customer interacts with the company through the sales force, over the Web or indirectly through a reseller. For this reason effective multi-channel management has emerged as a hallmark of a successful CRM strategy within organisations.

VI. CONCLUSION

In today's scenario, it's a very well known fact to everyone that the customer is the king. This is also one of the reasons that the level of difficulty is increasing day by day to retain customers. With the advancement in IT sector, customers are becoming more and more informed about their purchases. Media is educating them and they scout around for best product, brand name, product quality, operation and service support. In all these customer support is very essential. Organizations aim at satisfying customer's needs and desires. Traditional Customer Relationship Management used to face problems like delay in attending the customer query and delay in extending the timely service support due to manual operations. This can be achieved only with the best practices of E-CRM, as it helps organization provide high quality, interactive multimedia customer support and aims to improve customer acquisition, retention and transactions.

Today with the emergence of powerful info-tech tools, CRM has shifted to E-CRM. Due to which customer service/ support is becoming quick, timely and business-oriented. Customer Relationship Management aims at exploring the future customers, building the existing customer database, purchasing patterns of existing and future customers and purchasing process like time of purchase, place of purchase, periodicity of purchase of customers etc.

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