Emerging Trends in Food Retailing:
An Empirical Study on Customer Satisfaction

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Abstract:
With increased number of food and grocery retail outlets and availability of a variety of products, customers have become accustomed to patronizing multiple retailers. Retailers have recognized this trend and are of the view that customer satisfaction plays a role in the success of business strategies. Therefore it has become important for food and grocery retailers to try to stay in business for a long time and need to establish a strong relationship with customer and their focus should be on the customer satisfaction. Advance information technology tools like Business Intelligence (BI) helps retailers to identify the likings and disliking of its customers and helps in building a strong bond with existing customers and also to attract many more new customers.
This paper investigates the customer preferences, and tries to find the impact of trends in retailing on customer satisfaction of food retailing in the Indian retail context. For this, an empirical study was conducted considering customers of five organized food retailers namely, More supermarket, Reliance Fresh, Spencer's, Big Bazar and D Mart. From the study, it is observed that majority of the customers of five food retail outlets reported positively towards product quality, reliability of services with present trends in retailing; while Big Bazar and D mart are providing value for money, other retailers drive customer satisfaction with additional services. In addition, comparative analysis between these organized food retail stores is shown.

Keywords: Business Intelligence, data mining, competitive advantage, customer preferences, customer satisfaction.

1. Introduction

 "It is no longer enough to satisfy customers. You must delight them" – Philip Kotler.
In this fast growing and competitive retail market of India, retailers are embracing the trends in retailing in order to be successful and to provide the best service to customers. The retailers are equally focused on customer retention and customer satisfaction as well as on costs and sales as they are the ones which will succeed, because without customers, there are no sales. Any retail store that wishes to stay in business for a long time need to establish a strong relationship with customer and their focus should be on their customers. In order to know the customer preferences, organizations have to collect, group and analyze customer details. Yuen & Chan (2010) assert that in today's competitive grocery store sector, customer demands are bound to increase from time to time due to the improvement of service quality in parallel with product variety.
Advanced information technology tools are generally seen as supportive technology tools to human activities of business actions. The proper use these tools enables faster completion of tasks, increases reaction to market needs, lowers the time required for information processing, supports the decision-making processes, minimizes data entry errors and improves the quality of customer service. Business Intelligence (BI) tools are helping retailers in identifying valuable customer data, predicting future buying patterns, and buying behaviors of customers and to gain competitive advantage.
BI tools have become an integral part of any business that wishes to establish a strong customer relationship. These advanced information systems made possible to extract hidden information of customers' data from large databases through data mining techniques. By creating a database of contact information with customers, retailers can activate powerful campaigns with their customers, ranging from promotional offers to new item updates and can intelligently identify potential customers can stay ahead of competitors. Today both online and in-store retailers are using business intelligence (BI) tools to remain competitive in a cut-throat consumer market and to cope with the growing overflow of customer data. Business Intelligence is an umbrella term which was coined

by Howard Dresner of the Gartner Group in 1989 to describe "concepts and methods to improve business decision making by using fact-based support systems" (Power, 2008). Business intelligence combines "data gathering, data storage, and knowledge management with analytical tools to present complex and competitive information to planners and decision makers" (Negash & Gray, 2008).

The conventional definition of BI refers to the consolidation and analysis of internal data, for example, transactional point of sales (POS) data and external data e.g., consumer data for the purpose of effective decision-making. Point of sale (POS) is one of the most important parts of the overall customer experience with a retailer, located where a financial transaction occurs. With the help of BI tools, retailers are able to access information from customer loyalty card transactions and create advertising and marketing campaigns to be directly targeted to the audience considered the most receptive.

The valuable customer transaction information provides retailers with:
- purchases between certain dates
- no purchases between certain dates
- spent more or less than a particular rupee value
- accrued more or less than a certain number of points
- have purchased particular products
- have marketing profiles such as- birthday during a particular month,
- live in a certain geographical area, member of a particular group.

With BI tools and systems, most retailers find that their efficiency increases as employees are able to focus more on their customers and their needs, providing better service, which increases their brand value. Data ware housing and data mining tools are useful in determining information of customers' buying habits, repeat purchases, usage of discount schemes, frequency of purchases and more such information. These tools further help retailers in examining the performance of their retail schemes, improving their customer relationship management (CRM) systems etc. BI tools helps managers to feed in opening and closing stock at a particular retail outlet, which helps the head office to track stock of sold, unsold, damaged, returned products and are able to access their sales from virtually anywhere with several stores to manage.

2. Customer Satisfaction and Retail Service Quality

Satisfaction means the contentment one feels when one has fulfilled a desire, need or expectation. Customer satisfaction can be a measure of how happy customers are with the services and products of a supermarket. Keeping customers happy is of tremendous benefit to retailers as satisfied customers are more likely to stay loyal, consume more and are more likely to recommend their friends. Customer satisfaction is a powerful intangible asset similar to service quality and can be achieved through the fulfillment of customer expectations (Oliver, 1980). Kotler (2000); Hoyer & MacInnis (2001) define satisfaction as a person's feelings of pleasure, excitement, delight or disappointment which results from comparing a products perceived performance to his or her expectations. Customer satisfaction is found to be dependent on the quality of service offered to the customer and is one of the tools to increase value for customers (Sivadas & Baker-Prewitt, 2000).

More value for customer means higher satisfaction, which can benefit the retail organization in long run (Zeithaml, Berry, & Parasuraman, 1996); Cronin, Brady, & Hult, 2000), and generate higher revenue (Aaker and Jacobson, 1994).

Most of the earlier studies in retail sector signify the importance of CRM that maximizes customer lifetime value and minimizes excess inventory. The studies tell us that most retailers spend the majority of their advertising to attract new customers and these retail CRM systems keep customers coming back and when customers come to the store, they generate profits to the organizations. The increase in population, with a multitude of demands and expectations, makes the retail sector very competitive. A long term relationship is possible if the retailer can evaluate customer satisfaction with the quality of service experienced in a retail store. Dabholkar et.al (1996) proposed a methodology to study service quality in a retail setting through the Retail Service Quality Scale (RSQS).

This study focuses on the customer perception towards trends in retailing and their satisfaction in food retailing, by considering RSQS with modifications as proposed by Dabholkar et.al (1996).

3. Indian Food Retail Sector

India is a very complex retail market. Retailers not only have to contend with geographical, cultural and linguistic diversity, but manage business complicated by tax structures which vary from state to state. A successful retailer needs not only the right products at the right place and the right time but must also have the right price to be acceptable to the customer. In addition, the number of products managed is very high.

The Indian retail market, currently estimated at $490 billion, is project to grow at a compounded annual growth rate of 6 per cent to reach $865 billion by 2023. Currently India constitutes only 8% of organized retail and remaining 92% is left unorganized, which may grow much faster than traditional retail. It is expected to gain a higher share in the growing pie of the retail market in India. The country's traditional retail industry is expected to grow at an average annual rate of 5% over the next year, while the organized retail is estimated to register a growth rate of around 25% by 2020. India has major formats of food retailing such as:
- Specialty stores that focuses on specific consumer needs,
- Department stores having a wide variety of products, organized into different departments,
- Supermarkets having extremely large self-service retail outlets,
- Discount stores offering discounts on the retail price through selling high volumes and reaping economies of scale,

- Hyper-marts, larger than a supermarket, sometimes with a warehouse appearance, generally located in quieter parts of the cities and
- Convenience stores with small self-service formats located in crowded urban areas.

4. Need for the Study

Customers like to see technologically advanced systems, and they definitely enjoy a unique shopping experience with speedy and accurate checkout. Though Indian food retailers are adapting new modern information systems, a lot of study is required to know the trends of these retailers and how they are implementing successfully to match the needs of Indian customers that lead to customer satisfaction.

5. Objectives of the Study

Indian retailing though is increasing in volume; it is lagging behind the western countries in terms of proper use of modern information systems and hence analysis of advanced information systems has become vital. The study is aimed at organized food retailers in twin cities of Hyderabad and Secunderabad at Telangana to:

- Know the customer preferences towards trends in retailing.
- Study the impact of recent trends in retailing on customer satisfaction in different food retail stores.

6. Methodology

The sampling frame consisted of customers of five food and grocery retailers in the twin cities of Hyderabad and Secunderabad of Telangana, India. The study carried out considering organized food retailers in India, namely, More, Reliance fresh, Spencer's, Big Bazar and D mart to determine whether recent trends in retailing leads to customer satisfaction. A total sample size of 150 customers at these select grocery retailers was considered with convenient sampling method to conduct survey. The respondents were customers of these retailers; the sampling technique considered is convenient sample as long as they were qualified for being customers of those relative supermarkets.

The researchers used questionnaire as a tool for data collection because this method assists to increase response rate (Saunders et al 2000). In addition to quantitative research, qualitative research as well as the personal experience of the researchers was incorporated. The qualitative research comprises the secondary data and the method of data collection is minimized and was kept as simple as possible because of the complexity of the data.

7. Data Analysis

7.1. Qualitative Analysis

The benefits from advancements of technology tools being used in retailing and the expectations of customers based on secondary data and the personal observations of the researcher are given as:

Table1: Customer Preferences and Recent Trends in Food Retailing

Customer Preferences	Operations/ Benefits from Recent Trends in Advanced Technology Tools
Customer spends more time in a store selecting items but when it comes to billing, they need it fast. They do not have patience to wait for more time.	**Point of sale (POS)** Relatively low computer literacy and little training is required to operate these systems. - POS systems are cashier friendly and makes faster checkout and cash control, yet records accurate and legible information.
Customers expect availability of goods whenever they require and better purchase experience.	**RFID** RFID improves information quality in both time-based and content-based dimensions, therefore, retailers are able to get more accurate, relevant and complete information about products and customers. This in turn, will increase on-shelf availability and improve customer service.
Customers expect error free transactions.	**Barcoding and Scanners** -Barcode integration eliminates errors and speeds up the purchase and sale process. - Increases profits by improving billing speed and accuracy. -Helps to keep right inventory to increase profits and reduce cost
Customers need help in dealing with exchange of damaged products	**Electronic Data Interchange (EDI)** The entire process can be handled efficiently so that the exchanged/altered goods can be delivered on time.
Customers prefer to be satisfied when their expectations are met through different customer care means.	**CRM** -Offer membership cards, loyalty cards, using Barcoded, Magnetic or Smart Cards. -The overall goal of an organization is to nurture and retain existing customer and constantly get new one

Table 1: provides what customers actually look for when they visit a retail outlet and the benefits from advancements of technology tools being used in retailing.

7.2. Quantitative Analysis
The questionnaire was based on Likert scaling, which allowed for respondents to choose an option from the scale as follows: 1 = Strongly Disagree (S.D); 2 = Disagree (D); 3 = Neutral (Neu); 4 = Agree (A); 5 = Strongly Agree (S.A)
Dabholkar et al. (1996) tested the RSQS with department store customers in the US, and later in two store units of a departmental store involved in the first study. The model showed a fit in both the studies, and the scale was expected to be suitable for the study of retail businesses, such as departmental or specialty stores. Later, it was tested by researchers across countries and retail formats; Kaul (2007) tested RSQS for apparel stores in India. The Retail Service Quality Scale (RSQS) proposed by Dabholkar et al. (1996) was adapted for five constructs of service quality (physical aspects, reliability, personal interaction, problem solving, and policy). The total items in the RSQS scale proposed by Dabholkar et al. (1996) were 28, which included 6 for physical aspects, 5 for reliability, 9 for personal   interaction, 3 for problem solving, and 5 for policy. To measure the level of satisfaction of customers at selected supermarkets, the questionnaire was designed based on the preliminary study; few variables each for construct was considered to increase aptness, keeping in view the time constraints and appropriateness of the study to know the impact of trends in retailing. The following tables (table 4 to 9) shows the modified and simple constructs of service quality.

Response										
More		Reliance Fresh		Spencer's		Big Bazar		D Mart		Total
N	%	N	%	N	%	N	%	N	%	
20	13.3	40	27	20	13.3	35	23.3	35	23.3	150

Table 2: Total number of customers (N) in the survey

Of the total respondents (table.2), 13.3% visited More retail outlets, 27% visited Reliance fresh, 23.3% visited Big Bazar and D Mart respectively, and indicates the frequency of shopping at the respective retailers. Figure 1 shows total number of respondents representing the five food retail supermarkets**.**
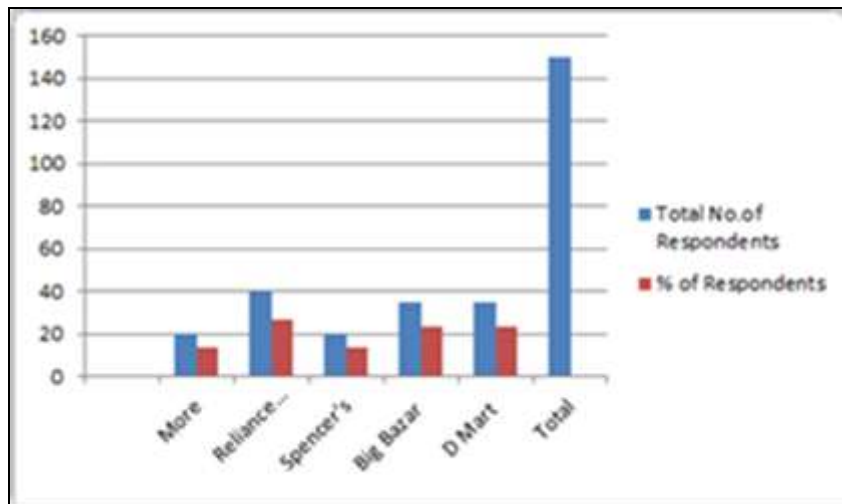

Figure 1: Total No of Respondents

Demographic factors	Frequency	Percentage
Age		
20-29	45	30
30-39	55	37
40-49	32	21
50-59	18	12
>60	-	-
Gender		
Male	77	51.3
Female	73	48.6
Marital Status		
Married	65	43
Unmarried	85	57

Occupation		
Student	35	23.3
Private Service	65	43.3
Government Employee	10	6.7
Business/self-employed	15	10
House wife	25	16.6
Others	-	-
Income*		
< 15000	15	28.6
15,000-30,000	45	32
30,000-45,000	25	23.4
45,000-60,000	25	20.2
>60,000	8	15.6
Sample size	150	

Table 3: Demographic Survey Sample Profile

*Out of 35 students 3 students are earning below Rs.15, 000 and the remaining did not choose income parameter, indicating they are dependents.

From the demographic survey (table.3), we find that major customer group belongs to 30 to 39 yrs contributing to 37%, the ratio of male to female being almost equal; major customers working in private services at 43.3% and major income group belongs to Rs.15, 000 to Rs.30, 000.

Response						
Scale	More	Reliance Fresh	Spencer's	Big Bazar	D Mart	
S.D	-	-	-	-	-	-
D	-	-	-	-	-	-
Neu	5	15	8	15	15	58
A	15	25	12	20	20	92
S.A	-	-	-	-	-	
Total	20	40	20	35	35	150

Table 4: By implementing modern information technology tools, retailers are able to provide customers with quality products all the time (product quality).
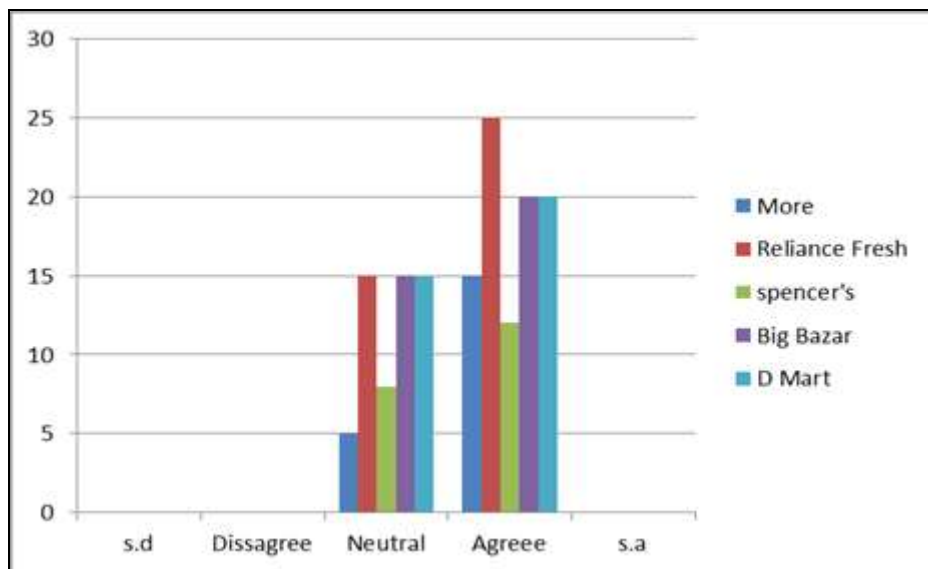

Figure 2: Respondents on product quality

Product quality is one of the main perceived features customers look to assess service quality that leads to customer satisfaction and to decide whether to revisit a particular supermarket or not. From the table.3 we observe that majority of the customers (92) agree that

modern retailers are providing quality products whenever they visit and some remain neutral (58). Figure 2 shows responses on product quality from the customers of the five food retail supermarkets.

Response						
Scale	More	Reliance Fresh	Spencer's	Big Bazar	D Mart	
S.D	-	-	-	-	-	-
D	-	-	-	-	-	-
Neu	15	15	5	30	25	90
A	5	25	10	5	10	55
S.A	-	-	5	-	-	5
Total	20	40	20	35	35	150

Table 5: Recent trends in retailing makes easy for customers to find what they need and find products they require (process).
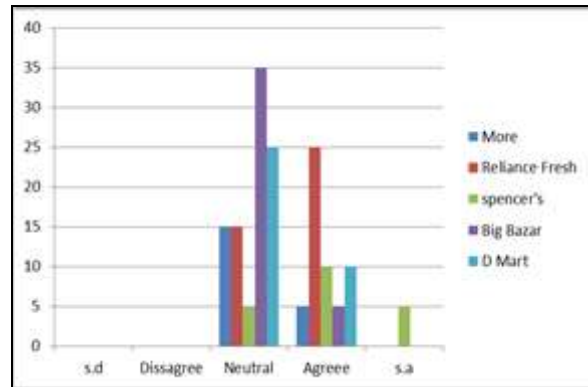

Figure 3: Respondents on process

Retailers have recognized that providing right product at right time leads to customer satisfaction. Modern retailers are finding new ways by better inventory management systems to attract customers by placing appropriate signage at different product categories so that customers can find products effortlessly and to ensure that right products are available. From the table.5 we observe that most of the customers (90) choose to be neutral and some of them (55) agree. Figure 3 shows the responses on process from the customers of five food retail supermarkets.

Response						
Scale	More	Reliance Fresh	Spencer's	Big Bazar	D Mart	
S.D	-	-	-	-	-	
D	-	-	-	-	-	
Neu	5	5	-	4	5	19
A	9	35	15	24	30	113
S.A	6	-	5	7	-	18
Total	20	40	20	35	35	150

Table 6: Recent trends in retailing leads to improvement in terms of error-free sales transactions (reliability).

Reliability has been found to have significant influence on customers, and is also a predictor of customer satisfaction (Das et al., 2010). The advanced systems like bar codes and scanners help retailers in error free transactions. From the table.6 it is observed that some of the customers strongly agree (19), majority of customers agree (113), and few remain neutral (18). Figure 4 shows the responses on reliability from the customers of five food retail supermarkets.
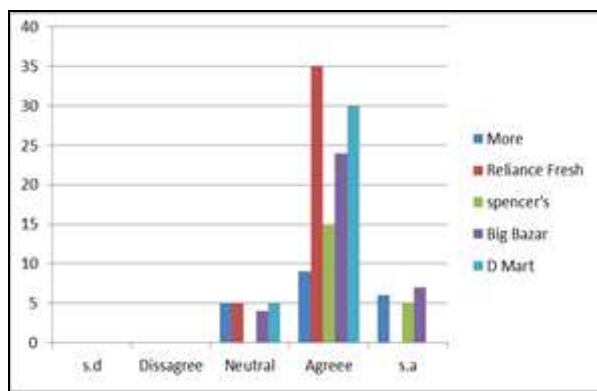
Figure 4: Respondents on reliability

Response						
Scale	More	Reliance Fresh	Spencer's	Big Bazar	D Mart	
S.D	-	-	-	-	-	-
D	-	-	-	-	-	-
Neu	9	12	8	12	12	53
A	11	28	12	23	23	97
S.A	-	-	-	-	-	-
Total	20	40	20	35	35	150

Table 7: Recent trends in retailing leads to improvement in prompt service of employees (personnel service).

Prompt service is considered to be an important element of positive customer evaluation and also to have a strong impact on customer satisfaction if the qualified staff helped them solve a problem. From the table.7, it is observed that majority of the customers (97) agree that there is improvement in prompt services and some of them (53) choose neutral. Figure 5 shows responses on personnel service from the customers of five food retail supermarkets.
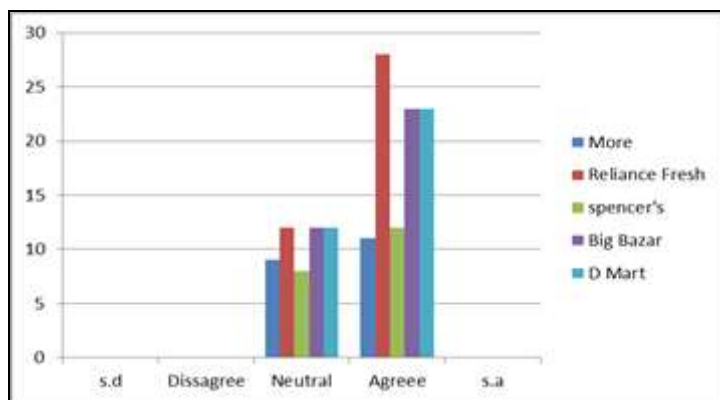

Figure 5: Respondents on personnel service

Response						
Scale	More	Reliance Fresh	Spencer's	Big Bazar	D Mart	
S.D	-	-	-	-	-	-
D	2	3	4	-	-	9
Neu	10	30	6	2	-	48
A	8	7	10	28	30	83
S.A	-	-		5	5	10
Total	20	40	20	35	35	150

Table 8: Recent trends in retailing provides customers product discounts, offers, etc (value for money-policy).

Policy includes quality of offerings, membership cards, different grades of products at different ranges, operating hours, credit options; this service quality construct has impact on customer satisfaction and termed it as an important factor, which influences a customer to shop repeatedly at the same store. From the table.8, most of the customers (48) belonging to Big Bazar and D Mart, agree for value for

money; some of the customers from More, Spencer's and Reliance supermarkets opted neutral (48). Figure6 shows responses from the customers of five food retail supermarkets on value for money- policy
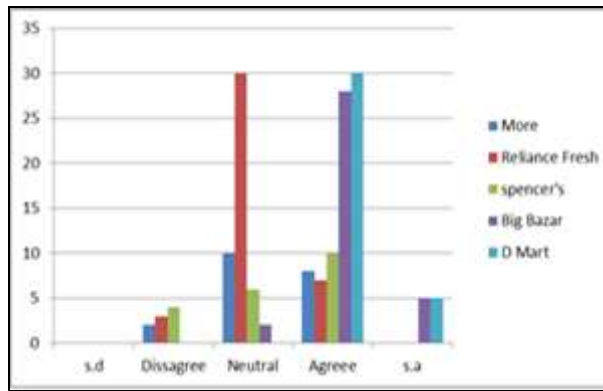

Figure 6: Respondents on value for money-policy

Response						
Scale	More	Reliance Fresh	Spencer's	Big Bazar	D Mart	Total
S.D	-	-	-	25	35	60
D	-	-	20	10	-	30
Neu	15	15	-	-	-	30
A	5	25	-	-	-	30
S.A	-	-	-	-	-	-
Total	20	40	20	35	35	150

Table 9: Trends in retailing favor services to customers like membership cards (additional services-policy).
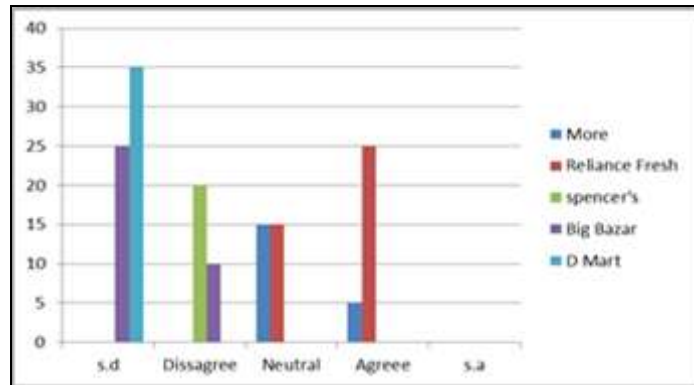

Figure 7: Respondents on additional services- Policy

Current retailers are offering additional services like membership cards to customers in order to maintain customer database to identify their purchase patterns. Das et al. (2010) found a significant relationship between service quality and customer satisfaction and termed it as an important factor, which influences a customer to shop repeatedly at the same store. From the table 9, it is observed that some of customers of More and Reliance fresh retailers (30) agree for membership offerings, some customers (30) being neutral. Big Bazar and D Mart provide customers with innovative offers on day to day basis. Figure 7 shows responses on additional services from the customers of five food retail supermarkets.

8. Use of Technology Tools in Retailing
Today retailers are offering customers vast and diverse range of products meant for the entire family in different categories which caters to the need of different customers from various economic slabs.

8.1. Scanners and Barcodes
Retailers are using scanners and barcodes that are fully computerized operations to:
- Optimize floor space and to visualize the layout prior to construction
- Inventory planning improvement through planned and systematic forecasting
- Provide a high magnitude of analysis and reporting
- Efficiently manage high inventory turns and volumes

- Improve the management of metrics, including service and inventory levels

8.2. Point of Sale (POS)
The first POS systems were rolled out by IBM in the 1970s. It wasn't until the beginning of the 1990s that the idea of personal computers running software could automate the functionality of a retail store. Since the mid-1990s, the retail industry has seen some impressive changes in the use of technology to enhance profit, with PCCD and electronic POS solutions providing invaluable data. Data gathered at the point of sale drives a retailer's business, not only monitoring daily financial returns but also by providing information necessary for inventory management, merchandising planning, supply chain management, and customer care. For the past few years, retailers have made technology investment a higher priority.

8.3. Customer Relationship Management (CRM)
Levy and Weitz define CRM as, "A business philosophy and set of strategies, programs, and systems that focuses on identifying and building loyalty with a retailer's profitable customers." It is based on the business philosophy that all customers are not profitable in the same way and retailers' can increase their profitability by building relationships with their better customers. The goal is to develop a base of loyal customers who patronize the retailer frequently. A customer loyalty system is a marketing tool used more and more in today's competitive retail world. Not only do reward cards and loyalty systems offer incentive to customers to return to the store, they can provide valuable information to the retailer about customer buying habits. Earlier managing customer relations would have been a nightmare, but with the help of advanced information technology tools retailers can increase customer loyalty and repeat purchases, communicate with the customer in a number of ways and gather customer intelligence for marketing purposes. By scanning a customer's loyalty card into a retail point of sale system, the retailer has the opportunity to collect information on the customer's brand preferences, purchasing habits and demographic information, etc.

9. Technology Applications in Retailing
Resent trends in Information Technology like BI tools are driving retail business not only to monitor relationship with customers, financial returns daily but also provides valuable information necessary for inventory management, merchandise planning, supply chain management, and customer care. Using BI tools retailers can keep detailed records of every shopping transaction of customers. This enables them to better understand various customer segments, some of the retail applications include:

9.1. Market Basket Analysis
Also known as affinity analysis, basket analysis reveals which items customers tend to purchase together. This knowledge can improve stocking, store layout strategies, and promotions.

9.2. Sales Forecasting
Examining time-based patterns helps retailers make stocking decisions. If a customer purchases an item today, when are they likely to purchase a complementary item?

9.3. Database Marketing
Retailers can develop profiles of customers with certain behaviors, for example, those who purchase designer labels clothing or those who attend sales. This information can be used to focus cost–effective promotions.

9.4. Merchandise Planning and Allocation
When retailers add new stores, they can improve merchandise planning and allocation by examining patterns in stores with similar demographic characteristics. Retailers can also use data mining to determine the ideal layout for a specific store.

10. Discussion and Conclusion
Consumers are becoming more demanding, and as a result, retailers are continuing to place more focus on the consumer shopping experience. This consumer-centric strategy, requires retailers to continually challenge the way they do business in order to differentiate themselves in new and innovative ways. This study tried to relate impact of recent trends in retailing on customer satisfaction with demographic factors like age, gender, marital status, occupation and income levels of customers and name of the supermarket. While most of customers are working in private organizations, general impression shows that a good store layout and service creates a better impression and positive attitude toward a retail store. From the study it is observed that retail customers in India had positive opinions towards the quality of products at food retailers, and agree that discount stores like Big Bazar and D Mart provide value for money.
The study shows that the trends in retailing leads to improvement in reliability of services in terms of error free transactions improvements in personnel services; while some customers are neutral and some of them agree for the physical facilities in terms of product availability and assortment. Retailers like More, Reliance fresh and Spencer's hypermarket are targeting customers offering various discounts on certain product ranges and are discovering which service areas need to be improved in order to gain competitive advantage and provide service quality, that results in customer satisfaction. The comparative analysis of customer satisfaction belonging to the five food retail supermarkets is also shown in graphical presentation.

11. Limitations and Guidelines for Future Research

This study has certain limitations as time constraints due to submission within the limited time frame to complete this research. The total items in the RSQS scale proposed by Dabholkar et al. (1996) were 28, but the present study considered few items due to time constraints. Other studies on customer satisfaction on the trends in retailing can be performed considering all the 28 items of the RSQS scale proposed by Dabholkar et al. (1996).

The findings of the present study were applicable only to the food retailers and the target population being the customers of those super markets, so the findings could not be generalized to the customers of other retail sectors. Further research can be applied to customers of other retailers; comparison of the customer satisfaction of different retail markets can be done. Further research may also be performed for the trends in retailing that leads to not only customer satisfaction but can relate to the profitability through customer loyalty and customer retention.

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