# CUSTOMER PURCHASING PATTERN AND INVENTORY MANAGEMENT AT RELIANCE FRESH

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**B.Sc. (Hons.) Agriculture**

**POST GRADUATE INSTITUTE OF AGRI-BUSINESS MANAGEMENT**

**JUNAGADH AGRICULTURAL UNIVERSITY**

**JUNAGADH- 362001**

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**SUBMITTED TO THE**

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**OF**

## MASTER OF BUSINESS ADMINISTRATION

**IN**

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**JUNAGADH AGRICULTURAL UNIVERSITY**

**JUNAGADH – 362001**

| **Name of the Student** | **Advisor** |
|---|---|
| **Ram Kishan Soni** | **Dr. H. Y. Maheta** |


# "PURCHASING PATTERN AND INVENTORY MANAGEMENT OF FRUITS AND VEGETABLES AT RELIANCE FRESH"

## ABSTRACT

***Keywords:*** *Purchasing patterns, inventory management, customer preference, ABC and EOQ analysis and Reliance Fresh*

Reliance Fresh is a prominent retail shop in India, offering a wide range of fruits, vegetables, and other grocery items to customers. With its extensive presence and competitive pricing, Reliance Fresh has become a popular choice for Indian consumers seeking convenient and affordable shopping experiences. Primary and secondary data were collected from 150 customers who regularly purchase fruits and vegetables from Reliance Fresh. Factor analysis using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test was employed to assess the suitability of the data for identifying underlying factors. From the ABC analysis for fruits, pomegranates and apples were ranked highest in Category A . Similarly, for vegetables, ginger, onions, potatoes, and tomatoes were identified as top contributors in Category A. The EOQ analysis reveals that mango has emerges as the most cost-effective fruit to stock and meet the demand. On the other hand, for vegetables, spinach has the lowest total cost at the calculated EOQ, making it the recommended vegetable to purchase and manage inventory. The research findings reveal that factors such as product quality, shopping environment, affordability, payment options, product image, and hygiene standards influence customer preferences Overall, customers express satisfaction with store location, availability, variety, pricing, and promotional efforts, while improvements in personnel services and communication are highlighted for enhancing the customer experience.

**POST GRADUATE INSTITUTE OF AGRI-BUSINESS MANAGEMENT**

**JUNAGADH AGRICULTURAL UNIVERSITY**

**JUNAGADH**

# CERTIFICATE – I

This is to certify that the project work report entitled "CUSTOMER PURCHASING PATTERN AND INVENTORY MANAGEMENT AT RELIANCE FRESH" submitted by RAM KISHAN SONI in partial fulfilment of the requirements for the award of the degree of MASTER OF BUSINESS ADMINISTRATION IN AGRI-BUSINESS MANAGEMENT to the Junagadh Agricultural University is a record of bonafide project work carried out by him under my guidance and supervision and the project work has not previously formed the basis for the award of any degree, diploma or other similar title. The candidate has fulfilled all prescribed requirements. The assistance and help received during the course of investigation have been fully acknowledged. He has successfully completed the preliminary examination held on March 29, 2023 as required under the regulation for post-graduate studies. He has submitted kachha bound project work report on June 7, 2023.

Place: Junagadh

Date: / /2023

**(H.Y. Maheta)**

Advisor and Assistant Professor

PG Institute of ABM

Junagadh Agricultural University

Junagadh

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I humbly extend my apologies to those whom I have inadvertently missed mentioning, and extend my heartfelt appreciation to all who have bestowed their blessings and well-wishes upon me.

It goes without saying that any remaining errors or omissions in this work are solely my responsibility.

**Place:** Junagadh

**Date:** (RAM KISHAN SONI)

# CONTENTS

# LIST OF TABLES

# LIST OF FIGURES

Respondent No.

# ANNEXURE I

## QUESTIONNAIRE (FOR SURVEY)

**"CONSUMER PURCHASING PATTERN AND INVENTORY MANAGEMENT**

**1. SOCIO ECONOMIC PROFILE OF THE CUSTOMERS:**

Age: ____________________________________ (in years)

Gender: Male [ ] Female [ ]

Education: ____________________________________ (in years)

Size of family: ____________________________________ (no.)

Occupation: ____________________________________

Annual income: ____________________________________ (in Rs.)

Distance from home: ____________________________________ (in Km)

**2.PURCHASING PATTERN OF CUSTOMERS**

**2.1 When do you go for shopping?**

| | |
|---|---|
| When I need to buy something | |
| When I have extra money | |
| When I am on the way | |
| When I accompany friends | |
| When I am free | |
| When I feel lonely | |
| Any other reason | |

2.2 How often do you go for shopping within a month? ____________________

2.3 How long does a shopping time of purchase? ____________________

2.4 How much money do you spend per shopping? ____________________

2.5 How many items do you have purchased? ____________________

**3. Factor affecting customer preference for purchasing of fruits and vegetables**

| | |
|---|---|
| • Good quality | |
| • Sufficient open space | |
| • Service better than traditional retailers | |
| • Self-service | |
| • Good relationship with store owner | |
| • Sellers provide necessary information | |
| • Availability of payment options | |
| • Cleanliness | |
| • Well known image | |
| • Relaxing atmosphere | |
| • Parking place | |
| • Product availability | |
| • Reasonable price | |
| • SMS facility | |
| • Convenient operating location | |

**4. INVENTORY MANAGEMENT OF FRUITS AND VEGETABLES**

| **Fruits** | **Units** | **Price** |
|---|---|---|
| Pomogranate | | |
| Apple | | |
| Mango | | |
| Banana | | |
| Orange | | |
| Lemon | | |
| Sapota | | |

| | | |
|---|---|---|
| Papaya | | |
| Guavava | | |
| Musk melon | | |
| Watermelon | | |

| **VEGETABLES** | **Units** | **Price** |
|---|---|---|
| Ginger | | |
| Onion | | |
| Potato | | |
| Tomato | | |
| Cucumber | | |
| Garlic | | |
| Spinach | | |
| Carrot | | |
| Okra | | |
| Coriandar | | |
| Chilli | | |
| Clusterbean | | |
| Brinjal | | |
| Cauliflower | | |
| Cabbage | | |
| Bottle gourd | | |

**5.CUSTOMER SATISFACTION**

| | |
|---|---|
| • Availability of fruits and vegetables | |
| • Quality of fruits and vegetables | |
| • Freshness of fruits and vegetables | |
| • Varieties of fruits and vegetables) | |
| • Price (highly satisfied, satisfied, not satisfied) | |
| • Promotion Offers (Buy 1 get 1 free, Discounts, Other Scheme) | |
| • Store Location (Very Good, Good, Poor) | |
| • Personnel (Services, Support, Communication) | |
| • Availability of wide range of products | |
| • The promotion or advertisements are very appealing too | |

| | |
|---|---|
| • The quality and style of advertising is impressive and adequate for attracting every age group | |
| • Adequate platforms are used for advertisement and promotions. | |
| • Sales promotion schemes are satisfactory | |

# ANNEXURE II

## LIST OF CUSTOMERS

| Sr. No. | Respondent Name | Contact No. | District |
|---|---|---|---|
| 1 | Badri | 9639210860 | Jaipur |
| 2 | Jagmohan | 9639420229 | Jaipur |
| 3 | Yaswant awas | 8958930994 | Jaipur |
| 4 | Jagjjevan | 9913923559 | Jaipur |
| 5 | Jitendra | 9879681816 | Jaipur |
| 6 | Shakher | 8859728131 | Jaipur |
| 7 | Sanjay | 8859484092 | Jaipur |
| 8 | Kamal | 9997331124 | Jaipur |
| 9 | Deepak | 9045045527 | Jaipur |
| 10 | Shurveer | 7830753635 | Jaipur |
| 11 | Akhbar | 9837116151 | Jaipur |
| 12 | Param singh | 9412156535 | Jaipur |
| 13 | Jagdish singh | 9927661242 | Jaipur |
| 14 | Chain singh | 9119001773 | Jaipur |
| 15 | Ranveer | 9997707499 | Jaipur |
| 16 | Amode | 9998586802 | Jaipur |
| 17 | Budi singh | 7055876124 | Jaipur |
| 18 | Devendra | 8057072597 | Jaipur |
| 19 | Baburam | 7351073134 | Jaipur |
| 20 | Haldar | 8057934832 | Jaipur |
| 21 | Kedar | 7300632720 | Jaipur |
| 22 | Arvind | 8057203352 | Jaipur |
| 23 | Devan | 8938043345 | Jaipur |
| 24 | Pushpa | 9634658710 | Jaipur |
| 25 | Vimla | 8126896845 | Jaipur |
| 26 | Madan mohan | 8126066907 | Jaipur |

| | | | |
|---|---|---|---|
| 27 | Devesvari | 9720888268 | Jaipur |
| 28 | Sakla | 9897654532 | Jaipur |
| 29 | Mahesha nand | 7060330653 | Jaipur |
| 30 | Visandel | 8006131622 | Jaipur |
| 31 | Pratimaa | 7300762287 | Jaipur |
| 32 | Sudha | 9068091495 | Jaipur |
| 33 | Rajani | 9891652389 | Jaipur |
| 34 | Mahesh | 7060330653 | Jaipur |
| 35 | Rajvender singh | 9891025025 | Jaipur |
| 36 | Chatra | 8979906115 | Jaipur |
| 37 | Jetendra singh rana | 9411380753 | Jaipur |
| 38 | Chandra devi | 9557639206 | Jaipur |
| 39 | Deepak | 9045045527 | Jaipur |
| 40 | Praksh | 7060464774 | Jaipur |
| 41 | Sumer singh | 7351300428 | Jaipur |
| 42 | Pingala devi | 8979995171 | Jaipur |
| 43 | Suganda devi | 8979322134 | Jaipur |
| 44 | Bachan sing | 9068722935 | Jaipur |
| 45 | Ummed singh | 9557406453 | Jaipur |
| 46 | Vaishakhi | 9639889591 | Jaipur |
| 47 | Bhag singh | 7055023058 | Jaipur |
| 48 | Vindra devi | 7248044178 | Jaipur |
| 49 | Dharma | 9856234587 | Jaipur |
| 50 | Manoj | 9997325938 | Jaipur |
| 51 | Amitha | 9557596169 | Jaipur |
| 52 | Chakori | 7895820214 | Jaipur |
| 53 | Dinesh | 8126521368 | Jaipur |
| 54 | Veer singh | 8979112851 | Jaipur |
| 55 | Sobni | 8755219609 | Jaipur |
| 56 | Ranveer | 7584713504 | Jaipur |
| 57 | Rukma | 9012357179 | Jaipur |

| | | | |
|---|---|---|---|
| 58 | Bhagirathi | 9417216445 | Jaipur |
| 59 | Kusum | 7534079122 | Jaipur |
| 60 | Kindra | 7455834911 | Jaipur |
| 61 | Neegdei | 9891288561 | Jaipur |
| 62 | Reena | 7060379142 | Jaipur |
| 63 | Jittendra | 8445673821 | Jaipur |
| 64 | Uttam singh | 9639857517 | Jaipur |
| 65 | Dewan singh | 7455834911 | Jaipur |
| 66 | Jagmohan parmar | 9891288561 | Jaipur |
| 67 | Rajendra rana | 7060379142 | Jaipur |
| 68 | Jogendar panwar | 8445673821 | Jaipur |
| 69 | Netri | 9898447118 | Jaipur |
| 70 | Chain lal kansi | 9909297941 | Jaipur |
| 71 | Vardhiya kansi | 9904366283 | Jaipur |
| 72 | Praveen rana | 9723698355 | Jaipur |
| 73 | Jayveer | 7622903016 | Jaipur |
| 74 | Rajendra | 9837504994 | Jaipur |
| 75 | Baldev singh | 9634562540 | Jaipur |
| 76 | Dhanveer | 8393926572 | Jaipur |
| 77 | Jyndra ruhi | 8126688513 | Jaipur |
| 78 | Jaipal | 8445003693 | Jaipur |
| 79 | Jaiprkash | 9634276323 | Jaipur |
| 80 | Balveer | 7895189661 | Jaipur |
| 81 | vikram | 9536562501 | Jaipur |
| 82 | Gujleshwari | 7454827745 | Jaipur |
| 83 | Jai prakash | 8171669074 | Jaipur |
| 84 | Naresh lal | 8126541114 | Jaipur |
| 85 | Abdul | 7906916387 | Jaipur |
| 86 | Satyam | 8003472043 | Jaipur |
| 87 | Surabh | 9955082246 | Jaipur |
| 88 | subhaum | 9470424340 | Jaipur |

| | | | |
|---|---|---|---|
| 89 | Ravi ranjan | 9155716446 | Jaipur |
| 90 | Deepak | 8319301656 | Jaipur |
| 91 | Ranjjet yadav | 8445673821 | Jaipur |
| 92 | Ram milan thakur | 7455834911 | Jaipur |
| 93 | Ved rai | 9891288561 | Jaipur |
| 94 | Rajiv rai | 7060379142 | Jaipur |
| 95 | Sanjay rai | 8979322134 | Jaipur |
| 96 | Ram sagar rai | 9068722935 | Jaipur |
| 97 | Satyaprakash singh | 8003472043 | Jaipur |
| 98 | Ramprakash singh | 7455834911 | Jaipur |
| 99 | Jayprakash singh | 9891288561 | Jaipur |
| 100 | Avdesh singh | 7060379142 | Jaipur |
| 101 | Sarvesh prasad | 8445673821 | Jaipur |
| 102 | Dharmesh sharma | 9639857517 | Jaipur |
| 103 | Ravindra sharma | 9727114727 | Jaipur |
| 104 | Devendra thakur | 9925424812 | Jaipur |
| 105 | Sushil gupta | 9974814802 | Jaipur |
| 106 | Nirmal thakur | 7455834911 | Jaipur |
| 107 | Manjesh prasad | 9891288561 | Jaipur |
| 108 | Ramyatan singh | 7060379142 | Jaipur |
| 109 | Ramashish singh | 9411380753 | Jaipur |
| 110 | Ramsuresh singh | 9557639206 | Jaipur |
| 111 | Ashish thakur | 9045045527 | Jaipur |
| 112 | Amlendu chowdhary | 7060464774 | Jaipur |
| 113 | Visheshwar chowdhary | 7351300428 | Jaipur |
| 114 | Mahesh thakur | 9119001773 | Jaipur |
| 115 | Dinesh thakur | 9997707499 | Jaipur |
| 116 | Ganesh thakur | 9998586802 | Jaipur |
| 117 | Ramesh thakur | 7055876124 | Jaipur |
| 118 | Suresh thakur | 8057072597 | Jaipur |
| 119 | Mithilesh thakur | 7351073134 | Jaipur |
| 120 | Kedarnath thakur | 8057934832 | Jaipur |
| 121 | B.l yadav | 7300632720 | Jaipur |
| 122 | Baleshwar yadav | 8057203352 | Jaipur |
| 123 | Kuseshwar yadav | 8938043345 | Jaipur |
| 124 | Maheshwar yadav | 9634658710 | Jaipur |
| 125 | Someshwar yadav | 8126896845 | Jaipur |
| 126 | Ramesh mishra | 8126066907 | Jaipur |
| 127 | Manoj yadav | 9720888268 | Jaipur |
| 128 | Rameshwar singh | 9723698355 | Jaipur |
| 129 | Kameshwar singh | 7622903016 | Jaipur |
| 130 | Vikas yadav | 9837116151 | Jaipur |

| | | | |
|---|---|---|---|
| 131 | Vinod singh | 9412156535 | Jaipur |
| 132 | Biharilal | 9411380753 | Jaipur |
| 133 | Ramsagar roy | 9557639206 | Jaipur |
| 134 | Ranjit singh | 9045045527 | Jaipur |
| 135 | Rajiv singh | 7060464774 | Jaipur |
| 136 | Sanjay singh | 7351300428 | Jaipur |
| 137 | Ajay singh | 8979995171 | Jaipur |
| 138 | Lalsingh jaishwal | 8979322134 | Jaipur |
| 139 | Awdesh rai | 9068722935 | Jaipur |
| 140 | Lal bahadur singh | 9557406453 | Jaipur |
| 141 | Vibhutinarayan singh | 9639889591 | Jaipur |
| 142 | Devi singh | 7055023058 | Jaipur |
| 143 | Krishna singh | 7248044178 | Jaipur |
| 144 | Parmeshwar singh | 9856234587 | Jaipur |
| 145 | Anand rai | 9997325938 | Jaipur |
| 146 | Ramashray thakur | 8445673821 | Jaipur |
| 147 | Shyamjee thakur | 9639857517 | Jaipur |
| 148 | Ramjee thakur | 7455834911 | Jaipur |
| 149 | Laxman sinsha | 9891288561 | Jaipur |
| 150 | Sita ram | 7060379142 | Jaipur |

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# CHAPTER-I

## INTRODUCTION

Retail is the sale of goods to end users, not for resale, but for use and consumption by the purchaser. The word retail is derived from the French word retailer, meaning to cut a piece off or to break bulk. In simple terms, it implies a first- hand transaction with the customer. Retailing can be defined as the buying and selling of goods and services. It can also be defined as the timely delivery of goods and services demanded by consumers at prices that are competitive and affordable. Thus, retailing can be said to be the interface between the producer and the individual consumer buying for personal consumption. This excludes direct interface between the manufacturers and institutional buyers such as the government and other bulk customers. Retailing is the last link that connects the individual consumers with the manufacturing and distribution chain. Retailing is the largest private industry in India and second largest employer after agriculture. The sector contributes to around 10 per cent of GDP and 6-7 per cent of employment. With over 15 million retail outlets, India has the highest retail outlet density in the world. This sector witnessed significant development in the past 10 years – from small unorganized family-owned retail formats to organized retailing.

The biggest opportunities for international brands are in the food and beverage segment and also in the jewellery segment. The business of fashion accounts for major position in total organized retail segment in the country. Hence, this retailing has indeed been responsible for single-handedly driving the business of retail in India.

The retail industry in India will be a major employment generator in the future. Currently, the market share of organized modem retail is just over 4 per cent ofthe total retail industry, thereby leaving a huge untapped opportunity (Praveena, 2015).

### 1.1 RETAIL CLASSIFICATION

Retail industry can be broadly classified into two categories namely- organized and unorganized retail.

**Organized retail** - Organized traders/retailers, who are licensed for trading activities and register organized retailing. It is a place all the items are segregated and brought under one roof, unlike the unorganized retail where there are different things are sold in different shops. Organized retailing comprises mainly of modern retailing with busy shopping malls, multi stored malls and huge complexes that offer a large variety of products in terms of quality, value for money and makes shopping at memorable experience to pay taxes to the government (Gandhi and Chinnadorai, 2017).

### 1.1.1 TYPES OF ORGANISED RETAIL FORMATS

- **Departmental stores**

  A department store is a large store with a wide variety of products shelvedsuch as clothing, house wares, furniture, appliances, and toys so on. The value proposition of this store is that it provides a one-stop shop catering to varied consumerneeds.

- **Super markets**

  Super markets are extremely large self-service retail outlets with the same value proposition as delivered by the department stores - one stop shop catering to varied consumer needs. For example, Food world.

- **Hyper marts**

  It is larger than a super market, sometimes with a warehouse appearance and generally located in quieter parts of the city. These stores offer vast choice at low prices and include services such as cafeterias. For example, Big Bazaar.

- **Discount stores**

  These types of stores offer discounts on the retail price by selling high volumes and reaping the economies of scale. The value proposition attached to these types of formats is in the name itself - low prices or at a discount.

- **Convenience stores**

  Convenience stores are small self-service formats located in crowded urban areas. The value proposition attached to these types of formats is a convenient location and extended operating hours.

- **Branded store**

  The exclusive showrooms either owned or franchised out by a manufacturer are termed as branded stores. They offer a complete range for a given brand with certified product quality.

- **Specialty stores**

  This type of store focuses on a specific consumer need and caters to most of the available brands. These types of stores provide greater choice to the consumers and enable brand comparison. For example, IKEA.

- **Shopping malls**

  An enclosure having different formats of in-store retailers, all under one roof is termed as a shopping mall. This type of a format is gaining importance these days. The benefit of this type of format is that different shops are located close to each other, thus enabling convenience of shopping (Padma and Shanthi, 2016).

- **Unorganized retail**

  It consists of unauthorized small shops - conventional Kirana shops, general stores, corner shops among various other small retail outlets - but remain as the radiating force of Indian retail industry Traditional or unorganized retail outlets are normally street markets, counter stores, kiosks, and vendors where the ownership and management rest with one person only. This sector accounts for the two thirds of the market and requires low skilled labour. These are highly competitive outlets, with negligible rental costs (unregistered kiosks or traditional property), cheap workers (work is shared by members of family) and low taxes (Gandhi and Chinnadorai, 2017).

## 1.2 SCENARIO OF RETAIL MARKET IN INDIA

India is the world’s fifth-largest global destination in the retail space. In FDI Confidence Index, India ranked 16 (after US, Canada, Germany, United Kingdom, China, Japan, France, Australia, Switzerland, and Italy). Indian retail industry has emerged as one of the most dynamic and fast-paced industries due to the entry of several new players. It accounts for over 10 per cent of the country’s gross domestic product (GDP) and around 8 per cent of the employment. India is the world's fifth-largest global destination in the retail space. India ranked 73 in the United Nations Conference on Trade and Development's Business-to-Consumer (B2C) E-commerce Index 2019. India is the world's fifth-largest global destination in the retail space and ranked 63 in World Bank's Doing Business 2020.

The sizeable middle class and nearly unexplored retail market in India are the main enticing factors for international retail behemoths seeking to move into newer markets, which will help the Indian retail business grow more quickly. The urban Indian consumer's purchasing power is increasing, and branded goods in categories like apparel, cosmetics, footwear, watches, beverages, food, and even jewellery are gradually evolving into business and leisure that are well-liked by the urban Indian consumer. The retail sector in India is expected to reach a whopping US$ 2 trillion in value by 2032, according to a recent analysis by the Boston Consulting Group (BCG) (*Anon.*,2023).

## 1.3 MAJOR ORGANISED RETAIL PLAYERS IN INDIA

**Shoppers' Stop**: Shoppers‟ Stop is counted among the top retail companies of India that has thousands of outlets in PAN India. All the outlets have amazing collection of apparels for men and women. Company is known for customer satisfaction and selling quality product.

**Reliance Retail**: Reliance Retail was started in 2006 to capture the growing retail market of India. Company is the part of Reliance industries that has excellent reputation in the industry. From Reliance retail customers have the facility to buy food items, lifestyle, fashion, consumer electronics products, home decor products.

**Trent ltd**.: Trent ltd was started in 1998. It is owned by TATA group and has immense potential to become the leader in the retail market. Company sells products under brand name Westside, Star Bazaar, Fashion Yatra and Landmark. More than 30,000 employees are associated with company that work to provide best customer experience.

**Pantaloons Retail Limited**: Pantaloons limited is another prominent retail company of India that was started in 1997 and been known for selling quality product. It is the part of Future group and has outlets in all the prominent malls & top shopping markets of India. More than 35000 employees are associated with company.

**Aditya Birla Retail**: It was started in 2006, once aditya birla group decided to enter in retail business. Company is new in the retail market but counted among the top 10 retail companies of India.

**Kewel Kiran**: Kewel Kiran is a clothing manufacturing company that is growing at excellent rate. Company has more than 100 outlets in PAN India. Also, to enhance sales, company regularly offer discount.

**Future Retail**: Future Retail is a division of Future Group, which started in the year 1987 with Pantaloons Retail. They are biggest organised retailers of India with 17 million sq. ft of retail space in 102 cities across India. They give direct employment to 35000 people and indirect employment to thousands of people via 30000 small, medium and large manufacturers and suppliers in country.

**Cantabil Retail**: Cantabil had humble beginning with one retail store in the year 2000, at Delhi. Today they have 145 exclusive retail stores spread all across in North, Central and Western cities of country with a total of 1,30,000 square feet.

**ITC – LRBD**: It is a leading retail company of India that was started in 1910 and has been in the industry from last 100 years and selling quality products in affordable prices. Company sells products under brand name of Wills Lifestyle and John Players and has thousands of outlets in PAN India.

**D-Mart**: It is a flagship supermarket store name of Mumbai based Avenue Super marts Limited. They opened their first store in the year 2000, at Mumbai. It became huge success and later on they opened their hypermarkets at 14 cities in Maharashtra, 9 cities in Gujarat, 2 Cities in Telangana and in other cities.

## 1.4 GROWTH OF RETAIL INDUSTRY IN INDIA

The Indian retail sector has been boxing with job opportunities. Some of the big players on the field like the Big Bazaar, J.C. Penny, Tesco, Reliance, Subhiksha, and I.T.C. are all competing in the retail chain's business. The Government’s node recently, for the entry of multinational companies like Wal–Mart, etc. in the Indian retail sector has opened up a plethora of job opportunities in this field. There are numerous opportunities in this field. The retailing sector in India is highly fragmented and consists predominantly of small, independent. There are some 12 million retail outlets in India. Besides, the country is also dotted with low-cost kiosks and pushcarts (Karmugil and Kannapa, 2015).

The Indian retail industry is forecast to grow almost four times to $2.1 trillion by 2025 from the present size of $550 billion. “India’s young population, increasing affluence, changing lifestyle, and attitude towards spending and increasing availability in the smallest of the towns will spur consumption and drive the growth of the retail market during the next 10 years,” according to a report titled “The Indian Retail Medley” by Confederation of Indian Industry (CII) and Wazir Advisors. In this period, organized retail is expected to grow seven times and online retail 26 times (Gandhi and Chinnadorai, 2017).

However, the unorganized retail is expected to still dominate with about 80 per cent share even by then. Also, 10-12 million jobs (direct and indirect) are expected to be created. It has been expected that the organized segment is to grow at a compounded annual growth rate (CAGR) of 22 per cent, much faster than traditional retail, which will grow at a CAGR of 13 per cent. However, even with high growth, the organized sector will capture just about 15 per cent share of retail market by 2025, up from 8 per cent now. (Gandhi and Chinnadorai, 2017).

**Table 1.1 Retail growth in India**

| **Year** | **$ billion retail growth** |
|---|---|
| 2008 | 368 |
| 2010 | 421 |
| 2012 | 478 |
| 2014 | 501 |
| 2016 | 548 |
| 2018 | 596 |
| 2020 | 627 |
| 2025* | 2100 |

## 1.5 CHALLENGES TO ORGANIZED RETAIL DEVELOPMENT IN INDIA

Organized retail in India is little over a decade old. It is largely an urban phenomenon and the pace of growth is still slow. Some of the reasons for this slow growth are:

**1.5.1 Kiranas Continue:** The very first challenge facing the organized retail industry in India is competition from the unorganized sector. Traditionally retailing has established in India for centuries. It is a low-cost structure, mostly owner operated, has negligible real estate and labor costs and little or no taxes to pay. Customer familiarity that runs from generation to generation is one big advantage for the unorganized sector. On the other hand, organized sector has big expenses to meet and yet have to keep prices low enough to compete with the traditional sector.

**1.5.2 Retail not Being Recognized as an Industry in India:** lack of recognition as an industry hampers the availability of finance to the existing and new players. This affects growth and expansion plans.

**1.5.3 The High Costs of Real Estate**: real estate prices in some cities in India are amongst the highest in the world. The lease or rent of property is one of the major areas of expenditure. A high lease rental reduces the profitability of a project. It is difficult to find suitable properties in central locations for retail, primarily due to fragmented private holdings, infrequent auctioning of large government owned vacant lands and litigation disputes between owners.

**1.5.4 High Stamp Duties:** in addition to the high cost of real estate the sector also faces very high stamp duties on transfer of property, which varies from state to state.

**1.5.5 Lack of Adequate Infrastructure:** poor roads and the lack of a cold chain infrastructure hamper the development of food and grocery retail in India.

**1.5.6 Price War:** There is a price war between different retail organizations. Every one is saying to provide goods at low cost and offers various promotional schemes. In such a case it is difficult to keep one’s customers with oneself.

**1.5.7 Shortage of Skilled Manpower:** Front-end/retail assistant profiles in stores form a major proportion of the employment in the retail sector while store operations accounts for 75-80 per cent of the total manpower employed in the organized retail sector. Unfortunately, there are very few courses specific to the retail sector and graduates/post graduates from other streams are recruited.

**1.5.8 Policy Induced Barriers:** organized retail in India is managed by both the Ministries of Commerce & Consumer Affairs. While the Ministry of Commerce takes care of the retail policy, the Ministry of Consumer Affairs regulates retailing in terms of licenses and legislation. There is a need to govern retail operations through a single apex body. A single agency can take care of retail operations more effectively.

**1.5.9 Channel Conflicts:** Globally, retailers maintain a direct relationship with their suppliers. Due to the complex taxation structure and geographical spread of the country, most FMCG companies have developed regional distribution and re-distribution network. Cutting out the distribution network will hurt the operating structure of distributors.

**1.5.10 Unique Indian Customer**: The Indian consumer experiencing modern retail has now warmed up to this idea. Buying habits have still not changed, where people prefer to buy most of the fruits and vegetables on a daily basis. The Indian consumers have a strong preference for freshly cooked food over packaged. Food mainly attributed to dietary patterns, poor electricity supply, low penetration of refrigerators and a family structure where one of the primary roles of the housewife's is feeding the family. There is also an impact on the basket size because of non-availability of personal transport facilities, due to which the consumers prefer to buy smaller quantities from stores conveniently located near their homes (Kusuma *et al*., 2013).

## 1.6 COMPANY INTRODUCTION

Reliance Fresh started the retail journey in November 2006 with the first Reliance Fresh store. In 2015, they operate over 93 cities across India with 700+ stores with a family of over 13 million happy customers. They are not only the largest grocery retailer in the country but also the only retailer who has successfully fulfilled the entire spectrum of Indian consumer's needs as they provide good quality Fresh produce, Dairy and bakery products over and above the staples and FMCG products. Reliance Industries Limited (RIL) is the biggest private company of India, a conglomerate that has its business spread across retail, gas exploration and Production, refining and marketing Petrochemicals and telecommunications. The company seeks to capture the entire Indian market with the launch of its Jio Infocomm 4G services and become the largest data service provider. The Brand Trust Report 2013 also reports RIL as the 7th most trusted brand in India.

Reliance Fresh is a supermarket chain which forms part of the retail business of Reliance Industries of India which is headed by the corporate giant Mukesh Ambani. Since its inception in 2006, Reliance Retail Limited (RRL) has grown into an organization that caters to millions of customers, thousands of farmers and vendors. Reliance plans to invest in excess of Rs 25000 crores in the next 4 years in their retail division. The company already has in excess of 560 reliance fresh outlets across the country. These stores sell fresh vegetables and fruits, staples, groceries, fresh juice bars and dairy products. A typical Reliance Fresh store is approximately 3000-4000 square feet and caters to a catchment area of 2-3 km. RRL now operates 22 different formats across India. 453 Reliance Fresh stores in over 45 towns and cities are operational across India.

Reliance Retail has decided to minimize its exposure in the fruit and vegetable business and position Reliance Fresh as a pure play super market focusing on categories like food, FMCG, home, consumer durables, IT and wellness, with food accounting for the bulk of the business. RRL increased its footprint to more than 900 stores in 80 cities across 14 states in India. Reliance Fresh, Reliance Mart, Reliance Digital, Reliance Trendz, Reliance Footprint, Reliance Wellness, Reliance Jewels, Reliance Timeout and Reliance Super are various formats that Reliance has rolled out. In addition, Reliance Retail has entered into an alliance with Apple for setting up a chain of Apple Specialty Stores branded as iStore. RRL has a direct engagement with over 5 million customers following a loyalty programme 'Reliance One' which was offered from the first day of its operation.

Reliance Fresh Direct makes the grocery shopping even simpler by bringing it to customer's door step. A comfortable shopping can be done from home; office or on the move and selection can be made from a wide range of 6000+ products. Reliance Fresh offers convenience of shopping for everything that the customer needs for his/her home - be it Fresh Vegetables and fruits, rice, dals, oil, packaged food, bakery and dairy item, frozen and pet food, household cleaning items, specialized beauty and personal care products from a single virtual store (Pattnaik *et al*., 2015).

## 1.7 VISION

To generate inclusive growth and prosperity for farmers, vendor partners, small shopkeepers and consumers, Reliance Retail Limited (RRL), a subsidiary of RIL, was set up to lead Reliance Group's foray into organized retail.

## 1.8 COMPANY PROFILE

On an average, turnover of the Reliance Fresh Stores is approximately 50,000 per day, each store, whereas compared to others cities it is abysmally low. The main aim is to provide good quality products at lower price and strive continually for customer service and satisfaction.

The normal business hours for the Reliance Fresh store, stretches from 6.30 AM in the morning to 10.30 PM at night. There are approx. 20 CSA‟s i.e., Customers Service Associates who help the customers in their purchase decision and make them feel at ease. CSA‟s normally works on two shifts. First shift is from 6.30 AM to 3.00 PM and second one is from 1.30 PM to 10.30 PM. In addition to the above, there are 2 store supervisors for each shift and one store manager is wholly responsible for major decisions pertaining to the store.

The Reliance Fresh Store, is situated in a place where there are more of colonies. This Reliance Fresh store has positioned itself as a convenience store located in middle class neighbourhoods. It caters to needs of its consumer base by providing high quality products in categories of (a) Staples (b) Fruits and Vegetables (c) FMCG (d) Kitchenware (e) apparels at competitive prices. Particularly in fruits and vegetables category, as the name “Reliance Fresh” suggests the company emphasizes on the attribute ‘Fresh’. So, in order to offer its consumer base quality products at competitive prices, Reliance Fresh concentrate on its procurement and logistics operations.

## 1.9 Product Details.

**1.9.1 Beverages:** In Beverages Reliance fresh include all types of cold drinks like Coca-Cola, Pepsi, Thumbs-up etc

**1.9.2 Staple**: In staple Reliance fresh display all types rice, grains, and all types of oil, ghee, and all types of dry fruits

**1.9.3 Non-food and FMCG:** Non-food products like soap, shampoo, tooth pest, spray, detergents, and FMCG products like all types of cold drinks and all types of mineral water etc.

**1.9.4 Bakery and Dairy products:** Reliance fresh also display all types of bakery and dairy products like milk, butter milk, cheese, butter, paneer, curd etc and all types of bakery products like bread, cake etc.

## 1.10 PRACTICAL UTILITY OF THE STUDY

This study would be useful for the company by means of understanding the image among customers, their provided services and problems faced by customers when they come to purchase at Reliance Fresh. This study revealed that the offers, schemes and strategies which mostly attracted the customers and this would also give more understanding about taste, preference and psychological behaviour of customers.

## 1.11 OBJECTIVES OF THE STUDY

1. To study the socio-economic profile
2. To identify the purchasing pattern of customers
3. To identify the factor affecting customer preference for purchasing of fruits and vegetables
4. To analyse inventory management of fruits and vegetables
5. To study the customer satisfaction

## 1.12 LIMITATIONS OF THE STUDY

1. This survey was restricted to Jaipur city only.
2. The study was covering only the customers purchasing of fruits and vegetables at Reliance Fresh only.
3. The sample size for the survey of customers was limited to 150 respondents which might not be representing the whole district.

# CHAPTER – II

## REVIEW OF LITERATURE

A brief review of studies, which have a direct or indirect bearing on the objectives of the present study, is attempted in this chapter. Commensurate with the objectives of the present study, the available literature was scanned and is briefly reviewed and presented under following heads.

**2.1 Socio-economic profile**

**2.2 Purchasing pattern of customers in Reliance Fresh**

**2.3 Factor affecting customer preference for purchasing of fruits and vegetables**

**2.4 Inventory management of fruits and vegetables**

**2.5 Customer satisfaction**

### 2.1 SOCIO ECONOMIC PROFILE

Mathivannan and Selvakumar (2008) examined the socio-economic background and status of women entrepreneurs in small scale industries in Virudhunagar districtof Tamil Nadu. Sample size of 200 women entrepreneurs randomly selected from the study area. In Virudhunagar district, as on March 31, 2007, the total number of registered small-scale industries run by women entrepreneurs from nine major industries amounted to 2012. For the purpose of survey, 20 per cent of the samples were selected from each category of industry. Sample industries were selected by using random sampling technique. The finding revealed that majority of the women entrepreneurs have employment experience before starting the new business and more than three-fourths of the enterprises are manufacturing units.

Rao (2010) studied on socio economic background of entrepreneurs in small scale industries in West Godavari District of Andhra Pradesh. In the selection of the sample units, a two-stage stratified simple random sampling technique was adopted. The study carried out with a sample of 135 small scale industrial units selected among 1345 registered units with district industries center. The findings revealed that nearly one-fourths of the enterprises are located within the Industrial estate and more than three-fourth of the enterprises are manufacturing and processing units. A majority of the enterprises run by the entrepreneurs are newly generated. This shows that a lot of initiation was there among the entrepreneurs.

Ruchi (2012) studied the socio-economic conditions of the area of the study. The study area has been carried out in village Chohala of R.S. Pura block of Jammu district in the State of J&K. The sample of 50 respondents were selected for the study. The description of the profile of the area has been done which focuses on the ratio of scheduled caste population in general and female population in particular. Land reforms of fifties and the 'Roshni Act', is believed to have radically affected the socio-economic life of the scheduled castes and political landscape of the region. It has been seen that the successful implementation of land reforms in the socio-economic status of the scheduled castes and their social mobility. It has been found that the economic condition of the respondents was not well as twenty percent of the respondents were landless and possess kaccha house.

Ali (2014) studied the socio-economic status profile of women in rural areas in Raichur district of Karnataka. The researcher has used both primary and secondary methods of data collection. The investigator has used the systematic sampling method where about 200 respondents were interviewed personally. Majority of respondents are between the age group of 30-45 years with 43 per cent, 38 per cent of the respondents were between the age of 45-55 years, and only 19 per cent were age of above 56 years. Majority of respondents are illiterate with 70 per cent and literates comprised of 30 per cent. Most of them are engaged in agriculture for their livelihood constituting of about 64 per cent and remaining 30% are wage labours, 5 per cent are working in private jobs and 1 per cent are engaged in government jobs. Majority of the respondents belong to Hindu religion which constitute about 76 per cent and 19 per cent are Muslims, Christian with 2 per cent and other with 3 per cent. Majority of the respondents belong to SC with 32 per cent, OBC with 30 per cent.

Bharathi and Nagaraja (2014) observed that the socio-economic profiles of bank customers among rural communities: A study in Chikkaballapur district of Karnataka. The study was conducted based on both primary and secondary data, the primary data were collected from 200 bank customers and secondary data were collected from different sources of information. The data collected were subjected to measure of central tendency and tabular analysis statistical tools. They observed that more than two-third of respondents were pursuing agriculture as their main occupation in that majority of them was pursuing plantation crops. The membership in political parties was the single largest institutional participation.

Ohen *et al.* (2014) studied on consumer purchasing behaviour for fruits and vegetables among civil servants in essien udim local government area, Akwa Ibom state, Nigeria. To achieve the purpose of this study, a multi stage sampling was used. The study has been revealed that availability within area of residence, price of the item and visual attractiveness were the most important factors that influenced the preference for consumption of fruits and vegetables.

Kathirvel and Rajan (2015) identified the demographic profile of the customers visiting organized retail outlets and unorganized retail outlets. The study was carried out with 150 respondents. Simple tabular analysis was done to analyse education, occupation and family size of respondent. They revealed that higher age group and families with annual income less than 4.0 lakes prefer kirana store, younger generation and higher qualification has more inclination towards organized retail.

Shashikiran and Madhavaiah (2015) in their research found that impact of socio-economic factors on purchase behaviour of organic food products. The research work explains the degree and nature of its impact. Organic retailers have observed the shift in the trend of organic product consumption and want to respond with suitable strategies in understanding the positive shift. The study was carried out in Bangalore City the sample size of 200 respondent's using cluster sampling technique. The study brought out the fact that the people were well aware of images and availability, but not loyal entirely too organic food products. The product availability in terms of volume and variety are required to become successful in marketing organic food products.

## 2.2. PURCHASING PATTERN OF CUSTOMERS

Rauthan (2007) assessed the consumption pattern as well as expectations of the rural consumer. The study was carried out with 300 respondents to know the consumption pattern, brand preferences, buying behavior, awareness and attitude of rural consumers towards shopping. Statistical techniques such as chi-square test, ANNOVA, average weighted score and t-test were used to analyse the data. It is found that all the products were used by the people in the study area. TV and Radio/Tape recorder were used by the maximum people. Majority of people were used national and multinational brands in both categories (durables & non-durables).

Mittal *et al.* (2011) carried out a study on the shopping patterns and spread of the monthly basket across different formats. A total of 101 consumers were interviewed personally to know their buying patterns for food and grocery items. Data was collected by doing survey at 50 retail stores in five selected cities. A simple statistical analysis was carried out to assess the shopping pattern which included descriptive statistical analysis, cross-tabulation and frequency distribution. They found that vegetables and fruits are most frequently purchased from nearby markets as compared to grocery products.

Mahalingam and Nandha Kumar (2012) analysed the shopping pattern of the respondands. Primary data was collected through questionnaire which was distributed to 400 samples chosen from Coimbatore city. Tools used for analysis were percentage analysis, garret ranking and chi-square. They observed that majority of the respondents used Colgate in tooth paste, Hammam in toilet soap and Dove in shampoo.

Junaid *et al.* (2013) examined consumption behavior of young females and their attitudes towards cosmetics in Delhi/NCR. This study focuses on the different marketing variables affects the female cosmetic consumption as well as their decision-making process for purchasing the cosmetic products. Primary data was obtained through questionnaire. This study also explains to some extent the influence of customer decision making process in purchasing the dermaceutical products in Delhi/NCR. The target sample was between the age group of 15 years to 35 years females and those who are living in Delhi/NCR. This age group fall under the category of young generation and they can be categories in the Millennials (those who are born after 1980).

Hiremath and Gudasi (2015) analysed the e-retailing in India - opportunities and challenges. The study was descriptive in nature and based on secondary data. The new wave of consumerism coupled with urbanization with paradigm shift in the demographic and psychographic dynamics had driven consumers frequently to use retail website to search for product information and make a purchase of products.

Tsourgiannis *et al.* (2015) studied the consumers buying behaviour towards organic wine in Southern Europe and more precisely in Greece. The study attempts to compare its results with other studies concerning Northern European Consumers' attitudes shedding light in potential differences. Field interviews conducted in a randomly selected sample consisted of 510 consumers in November and December of

2013, were analysed by employing multivariate statistical analysis. Principal components analysis (PCA) was conducted to identify the factors affecting people in preferring consuming organic wine. Cluster techniques employed to classify consumers with similar buying behaviour and identified three groups of consumers: the "conscious" consumers, the "curious" consumers, and the "opportunists". Discriminant analysis was performed to assess how the identified factors derived from PCA could predict cluster membership. Non parametric statistical tests were performed to profile the identified group of consumers regarding their demographic characteristics.

Shenbagasuriyan and Balachandar (2016) analysed kind of products customers' purchases from particular retail sector. Study was carried out at Virudhungar district. 160 respondents were selected through convenience sampling. Chi-square analyses was used for analysis. They concluded that customers' frequencies for visiting at least twice per month were having highest score and superstores were selected by customers to buy the products instead of family run store.

Vidyakala and Divyabharathi (2016) identified the preferred retail format and the purchase pattern of the consumers. The Sample Size of 157 respondents in Coimbatore was chosen through convenience sampling method. Percentage analysis, Garret ranking and descriptive statistics were used for the analysis through SPSS software. It was found that respondents prefer shopping malls more than any other retail format and 40% of them visit retail stores only on monthly basis.

## 2.3. FACTOR ANALYSIS

Moser *et al.* (2011) studied on consumer preferences for fruit and vegetables with credence-based attributes. The actual size of the database 40 publications was determined. To explore consumer preferences for fruits and vegetables, their focus on studies that try to understand the consumer-based key factors in purchasing sustainably produced fruits and vegetables including those that focus on methodological issues and that report these details within their empirical results. Their research provides a summary of attributes which likely drive consumers buying behaviour of sustainable fruits and vegetables. This study aims to identify and rank a number of attributes, focusing on how their statistical significance across consumer studies of fresh produce buying decisions.

Ingavale and Thakar (2012) studied on customer preferences for milk and milk products. The study was conducted in Kolhapur district is divided into 12 talukas and the respondents were selected from each taluka randomly. The total sample size of the study was 700 respondents. Analysis of the data collected from the respondents was done by using frequency and percentage method. The study revealed that a majority of the respondents purchased milk and milk products from grocery shops, bakeries and sweet marts. Some respondents preferred to purchase from company retail outlets and milk shoppes. So, the dairy units should strengthen their existing distribution channel and should also add new channel members to their existing distribution channel. There is a need to think about brand positioning and hence, it is required that companies position all their product variants with blanked family names so as to differentiate them from the competitors' brands.

Fawi and Abdalla (2013) examined the milk preferences of consumers and effect of the marketing mix on consumers' purchase decision of dairy products. The study was carried out during the period from 2009-2010 in Khartoum State were selected to obtain a total sample size of 450 consumers. Studying the preferences of consumption pattern of milk and factors affecting consumers' purchase decision of dairy products in Khartoum, state capital of Sudan. The study concluded with a number of recommendations, some of which are: processors and producers of dairy products should implement modern marketing concepts that focus on the consumers' needs and wants. Dairy processors and companies should focus on strong implementation of the marketing mix in ways that serve both the company and the customers.

Qasim and Agarwal (2015) examined the consumers' preference towards various non-alcoholic beverages. Study was carried out at Delhi. The study was carried out with 400 respondents. Primary as well as secondary data were used for the study. A Likert scale with convenient sampling was used to analyse the data. They concluded that customers prefer taste and health aspects for selecting non-alcoholic beverages.

Venugopal *et al.* (2015) identified the interest of the people for Reliance Fresh. Study conducted at Reliance Fresh, located at Pattabiram (Chennai). 52 customers were selected by using convenience sampling technique (i.e., non-probability sampling technique). Simple tabular analysis was carried out to analyse the data. They show that quality of the product was the primary parameter which was preferred by customers of reliance fresh mall.

Bhat and Kumar (2016) studied the customers' preference towards various areas such as price, promotion offered, food items offered, billing system, cleanliness, quality of product and parking facility at Big Bazaar. The study was carried out with 100 respondents. Descriptive research was used for the study. It is concluded that majority of the respondents like to purchase food products due to different variety of brand and cheap rate with better quality of product.

Preethi and Anupriya (2017) studied the customers' awareness and preference towards retail store. Study was carried out at Coimbatore city. The study had used both primary and secondary data. The study was carried out with 250 respondents. Simple ranking was used for analysis. They find out that consumers prefer modern retail formats due to quality, variety of products and for security purpose.

## 2.4. INVENTORY MANAGEMENT

Serhii (2015) review on models of inventory management under uncertainty according to this paper Inventories involves raw materials, work-in-progress and entirely completed goods that are in to be included in the firm's assets that are in position or would be in position for sale.

Kumar (2016) said that Inventors are assets of the firm and that they describe an investment. Such investment needs a commitment of funds; thus, a firm has to keep inventories at the accurate level. If the stocks are too large, the firm loses the chance to employ the funds more efficiently. Likewise, if they become too small, the firming hit lose sales. Thus, there is an optimal level of inventories. The economic ordering quantity issued compute the optimum quantity that can be procured to reduce the carrying and ordering costs.

Sitienei and Memba (2016) evaluated the effects of inventory management on the profitability of the Cement manufacturing firms in Kenya. A cross sectional data from 1999 to 2014 was gathered for the analysis of the annual reports for the three sampled firms listed at Nairobi Securities Exchange (NSE). The ordinary least squares (OLS) stated in the form of a multiple regression model was applied in the data analysis to establish the relationship between inventory management and firm's profitability. The variables used include inventory turnover, inventory conversion period, Inventory levels, storage cost, size of firm, gross profit margin, Return on assets and growth of firm. The results provide a negative relationship between inventory turnover, inventory conversion period and storage cost with profitability of the company. In addition, inventory level was found to be directly related to firm's size and storage cost. The study recommends that the Cement-manufacturing firms in Kenya should strive to ensure that the right stock is kept in their warehouses to hedge against excessive holding cost and stock-outs.

Feng xu (2017) suggested the optimal inventory control policy, the objective is to minimize the expected total costs related, of which the shortage cost is an important element. Due to the difficulty in calculating the indirect cost of the loss of goodwill resulted from the shortage, practitioners and researchers often simply assume a fixed penalty cost on the inventory shortage or switch to the alternative method by assigning a specific customer service level. The development of an appropriate tool for measuring the shortage cost can help a business control the total costs and improve the productivity more effectively. This paper proposes probabilistic measurements of the shortage cost, based on mathematical relationship between the cost and the shortage amount. The derived closed form estimates of the expected shortage cost value can then be applied to support the determination of the optimal inventory control policy.

Khobragode *et al.* (2018) concluded that inventory management system is software which is helpful for the businesses operate hardware stores, where storeowner keeps the records of sales and purchase. Mismanaged inventory means disappointed customers, too much cash tied up in warehouses and slower sales. This project eliminates the paper work, human faults, manual delay and speed up process. Inventory management system will have the ability to track sales and available inventory, tells a storeowner when it's time to reorder and how much to purchase. Inventory management system is a windows application developed for windows operating systems which focused in the area of inventory control and generates the various required reports.

Ju *et al.* (2019) developed a research model to examine the impact conducted in China and collected 271 valid data from the service providers. The results illustrated the importance of continuous information sharing in logistics service. Based on the results they put forward management suggestions from the perspective of government and enterprises.

Yue wang and yingjie ju (2019) This study developed a research model to examine the impact conducted in China and collected 271 valid data from the service providers. The results illustrated the importance of continuous information sharing in logistics service. Based on the results they put forward management suggestions from the perspective of government and enterprises.

Immaculate *et al.* (2020) studied the management of inventories which become important in cost maximization and profit maximization, the contribution of inventories irrespective of its size, nature and an adequate level of inventory to carryout business operations and thus inventory becomes an important and integral part of business. It helps to maintain the right level of supply and reducing loss to goods or materials before they become a finished product are sold to the customer. The study which is explained in detail based on the secondary data. The tools like EOQ analysis, ABC analysis, Inventory turnover ratio and FSN analysis are used for this study. It helps to identify the factors in a company' success or failure. The data are being analysed and arrived at findings and suggestions to measure the efficiency of the inventory management. This study also suggests the way to improve the satisfactory level of inventory management.

## 2.5. CUSTOMER SATISFACTION

Mathew and Sudha (2005) carried out customer satisfaction in relation to the products and services of Nagarjuna Herbal Concentrates Ltd. (NHCL) with 100 respondents. It was processed using frequency analysis and Chi-square test. It is observed that in the case of 85 per cent of the people surveyed in the study prefer products of NHCL and majority of the respondents 64 per cent are of the opinion that products of NHCL are effective in treating diseases and an additional 17 per cent of the respondents consider it as highly effective and the remaining 19 per cent consider the products as satisfactory. The company should pay immediate attention to see that the price index of the products does not increase much when compared to that of the competing companies.

Rao and Shanthi (2007) examined the customer satisfaction at eSeva (Electronic Seva) centres in Hyderabad and Secunderabad. The sample of 50 respondents were selected. In the analysis and interpretation of data, statistical tools like percentage and averages have been used. It is observed that 92 per cent of the respondent's avail services from the e-Seva centres because it is near to their residential areas and also that services availed from e-Seva centres with 92 per cent of the customers come to e-Seva centres to pay their utility bills. It is interesting to notice that most of the respondents are satisfied by the existing system of functioning at these centres.

Raju (2008) studied on customer satisfaction towards photocopiers w.r.t. Xerox in Hyderabad. A sample of only 200 respondents is chosen for the study. A 5-point scale of Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree is used. It is observed that Xerox is widely used (More than 50%) by jobbers followed by Canon, Ricoh and Gestetner. The study is focusing on Xerox, from now on, every calculation is done on the 109 respondents who are using XEROX copier only. The study revealed that finding 50 per cent of the total consumers studied, preferred Xerox, while 17 per cent chose Canon and 7 per cent chose Ricoh. The rest of them preferred other brands like Godrej, Minolta, Sharp and Toshiba. Market for Xerox photocopiers is wide and ever growing and there is always a demand for them as they are the best quality photocopiers at reasonable price with better services.

Hazra and Srivastava (2010) studied on impact of service quality on customer satisfaction, loyalty and commitment in the Indian banking sector in Bengal. The data collected from 300 respondents, out of which 160 respondents (53%) were from public sector banks and 140 respondents (47%) were from private sector banks. The data were analysed using multiple regression analysis and factor analysis. The study revealed that service quality tends to have a strong impact on customer satisfaction depending on the quality performance. Public sector banks should focus on assurance- empathy, tangibles and the private sector should focus on providing reliable services.

Joshi (2011) examined the service quality and customer satisfaction across various service providers in the telecom sector in Chandigarh, Panchkula and Mohali. Providers taken for the study were Airtel, BSNL, Hutch, Tata Indicom, Reliance and Spice with a market share 99 per cent in the mobile services in the selected region. The sample size for the study is determined as 900 customers. Descriptive analysis, Correlation analysis. ANOVA and T-test was used as a method analysis. The study revealed that finding of the study showed that 39.7 per cent of the respondents had maintained a relationship with the service provider for less than 2 years and 28.1 per cent had used same connection for a period of 2 to less than 3 years. It has been found that customer's perception of service quality and customer satisfaction differs across service providers.

Malik (2011) studied on determinants of retail customer satisfaction of organized retail outlets in Kurukshetra with 150 shoppers. The questionnaire used is multiple-choice and 5-point scale (5-highly satisfied to 1- highly dissatisfied) was used. To find out the customer satisfaction with the sub-dimensions of the product characteristics with the quality of product got highest score and percentage (26.23%), followed by variety of goods (25.05%). The study revealed that majority of the respondents were satisfied with the price as reasonable price. They have suggested that younger respondents demand branded products at reasonable and fixed prices and have a tendency to avoid bargaining.

Chalotra (2012) studied on small manufacturing firm's product-mix and customer satisfaction. The hypotheses were examined by analysing primary data collected from 368 customers who were using the products manufactured by small functional manufacturing units sub-divided into ten lines of operation in district Udhampur, J&K State. Factor analysis was applied to the collected data. The study that customer's satisfaction independent upon product quality, product features, product image and product services offered along with the product and there exists significant mean difference as far as customer satisfaction is concerned with regard to their age, qualification and profession. To nurture customer satisfaction small scale industries should come up with regular advertisement, reputed brand, more products features and delighted after sale service.

Malik (2012) found that a customer's satisfaction towards service quality of organized retail stores in Haryana. The study was conducted in 500 respondents of the survey were Haryana's shoppes. Person's correlation test was performed to examine the relationship between dimensions of service quality and customer satisfaction. The study revealed that finding a significant difference was found in the physical aspects, promotional schemes, personnel interaction and after sales services, when respondents were grouped according to age and annual income. the organized retail managers must assure quality and availability of new products and attractive promotional schemes to enhance customer satisfaction.

Vennila (2014) studied on problems faced the customers with reference to E-banking services in private sectors banks. The study will be conducted both primary and secondary data were used with 200 sample respondents from Coimbatore District. Garret ranking method was used for analysis. For collecting the first-hand information from the customers of HDFC bank, ICICI and AXIS 400 respondents were chosen by simple random sampling method. The study revealed the problems faced by the customers while using the Value-added services through E-channels. The research scholar would be delighted if the findings and suggestions are incorporated by the HDFC bank in the study area.

# CHAPTER-III

# METHODOLOGY

This chapter deal with the methodology which comprises selection of the study area, types of data and information used, sampling techniques and tools used for analysis of data. It is divided in the following sub title:

3.1. Location

3.2. Sampling techniques

3.3. Sources of Data

3.4. Statistical Analysis

## 3.1 Location

The present study is confined to the Jaipur city, which was carried out during the year 2023. The city is famous with its architecture and numerous historic places of interest. Reliance Fresh is located in new sanganer road and it is favorable place for Jaipur citizens to come to that place frequently and comfortably.

Jaipur, city, capital of Rajasthan state, north-western India. It is situated in the east-central part of the state, roughly equidistant from Alwar (northeast) and Ajmer (southwest). It is Rajasthan's most-populous city. The city is surrounded by fertile alluvial plains to the east and south and hill chains and desert areas to the north and west.

Bajra (pearl millet), barley, gram (chickpeas), pulses, and cotton are the chief crops grown in the region. Water is scarce but is found at a depth of 100 to 200 feet (30 to 60 metres). The soil and sand are calcareous (chalky). The soils in central Rajasthan are also sandy; clay content varies between 3 and 9 percent. Except in the hills, the heat during the summer is intense everywhere, with temperatures in June—the warmest month—typically rising from the mid-80s F (about 30 °C) to nearly 110 °F (low 40s C) daily. In January—the coolest of the winter months—daily maximum temperatures range from the upper 60s to the mid-70s F (low to mid-20s C), while minimum temperatures are generally in the mid-40s F (about 7 °C). The western desert has little rain, averaging about 4 inches (100 mm) annually. In the southeast, however, some areas may receive almost 20 inches (500 mm) (*Anonn.,* 2023).

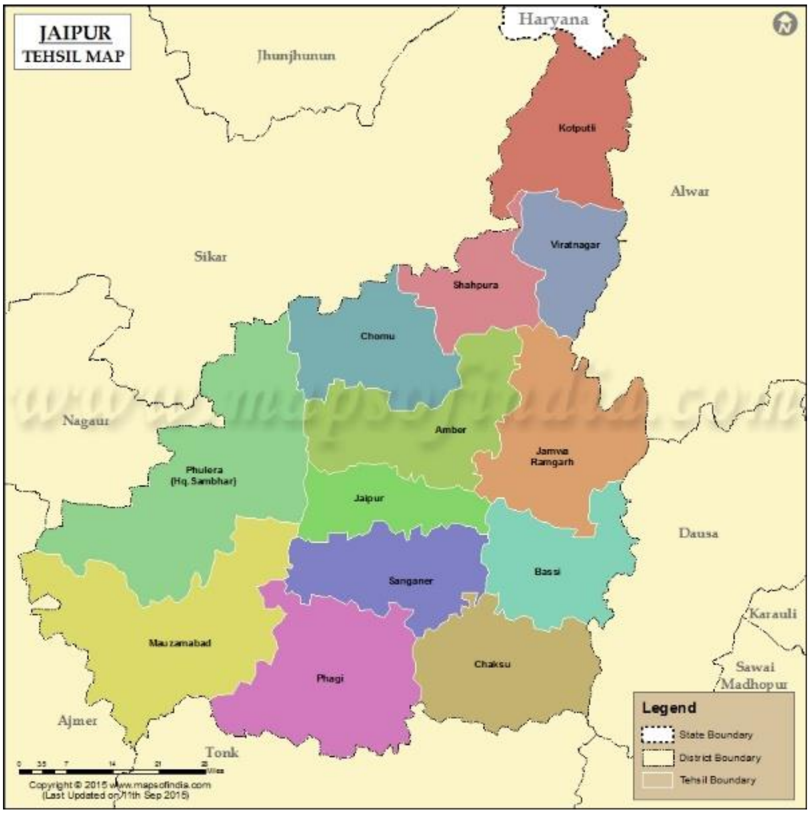


Fig. 3.1. Map of Jaipur

## 3.2 Sampling technique

Convenience sampling was adopted as per the objective of the study. Jaipur district was selected for convenience. Reliance Fresh is selected due to high populated area and presence of more retail shops. The data was collected from 150 customers who purchase fruits and vegetables from Reliance Fresh.

## 3.3 Source of data

The data was collected from both primary sources and secondary sources.

### 3.3.1 Primary data

The primary data was collected with the help of the well-prepared questionnaires by taking the responses of the consumers toward Reliance Fresh, Jaipur. The questionnaires cover the socio-economic profile of customers, consumer preference, their satisfaction and purchasing pattern of customer towards the Reliance Fresh.

### 3.3.2 Secondary data

The secondary data was collected through the following sources:

Directly from the company -monthly purchasing data of fruits and vegetables for one year (1-01-2022 to 30-12-2022), sales data of 27 products was collected. Data had been collected regarding discounts, allowances, offers etc. for selected products.

Some required data from company's website to justify the objective.

### 3.4 Statistical Analysis

Based on the well-structured questionnaires, interviews of customers were conducted.

### 3.4.1 Socio-economic profile

The simple tabular analysis, percentage analysis and graphical presentation was used in socio economic profile of the sample.

The parameters included for the study of socio-economic profile of the sample:

- Age (in year)
- Gender (Male, Female)
- Education (Primary, Secondary, Higher secondary, Graduate, Post Graduate)
- Size of family (Small, Medium, Large)
- Occupation (House makers, Business Man, Students, Service people)
- Annual Income (in Rs.)
- Frequency of visit (daily, weekly, monthly, unplanned)

(Rajeswari and Pirakatheeswari, 2014)

To identify the purchasing pattern of Reliance Fresh customers in Jaipur district, simple tabular method will be used. The following parameters were included for the study purpose:

- Reason for purchase
- Amount spent on purchase (Rs.)
- Frequency of purchase (Daily, weekly, monthly, unplanned)
- Number of items purchased

- Time spent on purchase (minutes)
- Distance from home (km)
- Customer Preference

**3.4.2 Factor analysis (KMO and Bartlett's Test)**

The individual statements of a study on the factor affecting customer preference for purchasing fruits and vegetables at Reliance Fresh was examined using factor analysis based on 150 individual statements and the reliability of the samples collected was tested for internal consistency of the grouping of the items. KMO measure of sampling adequacy is an index to examine the appropriateness of factor analysis. High values between 0.5 and 1.0 indicate factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate. Bartlett's Test of Sphericity will be used to examine the hypothesis that the variables are uncorrelated. It is based on chi-Square transformation of the determinant of correlation matrix. A large value of the test statistic will favour the rejection of the null hypothesis. In turn this would indicate that factor analysis is appropriate. In order to study the factor affecting customer preference for purchasing Reliance Fresh products. Mathematically, factor analysis is somewhat similar to the multiple regression analysis. Each variable is expressed as a linear combination of the underlying factors. The amount of variance, variable shares with all the other variables included in the analysis is referred to as communality. The co-variation among the variables is described in terms of a small number of common factor, plus a unique factor for each variable. These factors are not over observed. If the variables are standardized, the factor model may be represented as:

$$\mathbf{Xi = Ai1\ F1 + Ai2\ F2 + Ai3\ F3 + \ldots\ldots.. + Aim\ Fm + ViUi}$$

Where,

Xi = $i^{th}$ standardized variable,

Aij = Standardized multiple regression coefficient of variable i on common factor j

F = Common factor

Vi = Standardized regression coefficient of variable i on unique factor i

Ui = The unique factor for variable i

m = Number of common factors

To find out the factors affecting customer preference for purchasing Reliance Fresh products. In this regard, the data was collected on 19 factors –

- Good quality
- Knowledge about the product
- Polite and courteous staff
- Visually appealing physical facility
- Convenient operating location
- SMS facility
- Reasonable price
- Product availability
- Parking place
- Relaxing atmosphere
- Attractive schemes & discounts
- Availability of payment options
- Sellers provide necessary information
- Well known image
- Cleanliness
- Good relationship with store owner
- Self-service
- Service better than traditional retailers
- Sufficient open space

The unique factors are uncorrelated with each other and with the common factor. The common factor themselves can be expressed as linear combination of observed variable.

$$\mathbf{Fi = Wi1\ Xi + Wi2\ X2 + Wi3\ X3 + \ldots\ldots + Wik + Xk}$$

Where,

Fi = Estimate of $i^{th}$ factor

Wi = Weight or factor score coefficient

K = Number of variables

It is possible to select weights or factor score coefficients so that the first factor explains the largest portion of the total variance. Then, a second set of weight can be selected, so that the second factor accounts for most of the residual variance, subject to being uncorrelated with the first factor. This same principle could be applied to selecting additional weights for the additional factors. Thus, the factors can be estimated so that the scores of their factors, unlike the value of the original variable, are not correlated. Furthermore, the first factor accounts for the highest variable in the data, he second factor the second highest, and so on.

(Anandaraj and Chinniah, 2011)

### 3.4.3. ABC Analysis

ABC analysis was used for estimating inventory management of fruits and vegetables in reliance fresh. ABC inventory control technique is based on the principle that a small portion of the items may typically represent the bulk of total material usage of the total inventory in the construction process, while a relatively large number of items may form a small part of the money value of stores. The total material usage is ascertained by multiplying the quantity of material of each item by its unit price. The items.

"A" Category – 5 per cent to 10 per cent of the items represents 70 per cent to 75 per cent of the total material usage.

"B" Category – 15 per cent to 20 per cent of the items represent 15 per cent to 20 per cent of the total material usage.

"C" Category – The remaining number of the items represents 5 per cent to 10 per cent of the total material usage.

The relative position of these items shows that items in category A should be under the maximum control, items of category B may not be given that much attention and item C may be under a loose control.

**Steps for the classification of items**

- Find out the unit cost and the usage of each material over a given period
- Multiply the unit cost by the estimated annual usage to obtain the net value
- List out all the items and arrange them in the descending value (Annual Value)

- Accumulate value and add up number of items and calculate percentage on total inventory in value and in number
- Draw a curve of percentage items and percentage value
- Mark off from the curve the rational limits of A, B and C categories

(Ramanathan, 2006)

### 3.4.4 EOQ analysis

The EOQ refers to the order size that will result in the lowest total of ordering and carrying costs for an item of inventory. If a firm place unnecessary orders it will incur unneeded order costs. If a firm places too few orders, it must maintain large stocks of goods and will have excessive carrying cost.

$EOQ = Q = \sqrt{(2DS/H)}$

Where,

Q = Number of units per-order

EOQ = Optimum number of units per order

D = Annual demand in units for inventory items

S = Cost for each order

H = Holding costs per year

(Tungalag *et al*. 2017)

### 3.4.5 Customer satisfaction

The three-point Likert's scale technique was used to study the satisfaction level toward Reliance Fresh product.

A Likert scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research, such that the term is often used interchangeably with rating scale, or more accurately the Likert-type scale, even though the two are not synonymous. The scale is named after its inventor, psychologist Rensis Likert. Likert distinguished between a scale proper, which emerges from collective responses to a set of items (usually eight or more), and the format in which responses are scored along a range.

Technically speaking, a Likert scale refers only to the former. The difference between these two concepts has to do with the distinction Likert made between the underlying phenomenon being investigated and the means of capturing variation those points to the underlying phenomenon. When responding to a Likert questionnaire item, respondents specify their level of agreement or disagreement on a symmetric agrees- disagree scale for a series of statements. Thus, the range captures the intensity of their feelings for a given item. A scale can be created as the simple sum of questionnaire responses over the full range of the scale. In so doing, Likert scaling assumes that distances on each item are equal.

A Likert item is simply a statement which the respondent is asked to evaluate according to any kind of subjective or objective criteria. Generally, the level of agreement or disagreement is measured. It is considered symmetric or "balanced" because there are equal numbers of positive and negative positions. Likert scaling is a bipolar scaling method, measuring either positive or negative response to a statement. The three-point scale was given to the different parameters which are satisfied, moderately satisfied and dissatisfied. Factors are

- Availability of fruits and vegetables
- Quality of fruits and vegetables
- Freshness of fruits and vegetables
- Varieties of fruits and vegetables)
- Price (highly satisfied, satisfied, not satisfied)
- Promotion Offers (Buy 1 get 1 free, Discounts, Other Scheme)
- Store Location (Very Good, Good, Poor)
- Personnel (Services, Support, Communication)
- Availability of wide range of products
- The promotion or advertisements are very appealing too
- The quality and style of advertising is impressive and adequate for attracting every age group
- Adequate platforms are used for advertisement and promotions.
- Sales promotion schemes are satisfactory

(Suchanek and Kralova, 2019)

# CHAPTER-IV

## RESULT AND DISCUSSION

In this chapter the data collected from the sample population are critically analyzed using different analytical tools and the observations are presented under the following heads:

4.1 Socio-economic profile
4.2 Purchasing pattern of customers
4.3 Factor affecting customer preference for purchasing of fruits and vegetables
4.4 Inventory management of fruits and vegetables
4.5 Customer satisfaction

### 4.1 SOCIO-ECONOMIC PROFILE

The details of socio-economic profile of the sample respondents are given in the following Tables. The various socio-economic characteristics such as age, gender, level of education, size of family, occupation, annual income and frequency of visiting are shown below.

#### 4.1.1 Distribution of customers according to their age

The age of sample customers in Jaipur city is presented in Table 4.1. The customers were divided in three age groups. The highest per cent of customers 60 per cent belonged to young age group of up to 35 years, followed by 25.33 per cent customers belonged to the middle age group of 36 to 50 years, 14.66 per cent customers belonged to the old age group of above 50 years. It is observed from the results that, mostly peoples of young age category are purchasing products of Reliance Fresh.

**Table 4.1 Distribution of customers according to their age**

**n = 150**

| Sr. No. | Age group | Number | Per cent |
|---|---|---|---|
| 1 | Young (Up to 35 years) | 90 | 60.00 |
| 2 | Middle (Between 36 to 50 years) | 38 | 25.33 |
| 3 | Old (Above 50 years) | 22 | 14.66 |
| **Total** | | **150** | **100.00** |

### 4.1.2 Distribution of customers according to their level of education

The education level of sample customers in the Jaipur city is presented in Table 4.2. The majority of customers i.e., 56 per cent had the education up to graduation level, followed by 21.33 per cent customers had higher secondary education, 17.33 per cent customers had post graduate and above, 3.33 per cent customers were secondary education and only 2 per cent customers were primary education. Thus, majority of respondent are literate. The fact that, all the respondents are educated implies that they are likely to appreciate the importance of Reliance Fresh.

**Table 4.2 Distribution of customers according to their level of education**

**n =150**

| Sr. No. | Education | Number | Percentage |
|---|---|---|---|
| 1 | Primary education (up to 7$^{th}$ standard) | 3 | 2.00 |
| 2 | Secondary education (8$^{th}$ to 10$^{th}$ standard) | 5 | 3.33 |
| 3 | Higher secondary education (11$^{th}$ to 12$^{th}$ standard) | 32 | 21.33 |
| 4 | Graduation | 84 | 56 |
| 5 | P.G. and above | 26 | 17.33 |
| **Total** | | 150 | 100.00 |

### 4.1.3 Distribution of customers based on the gender

From the Table 4.3, it was inferred that 57.33 per cent respondents are male they are followed by 42.66 per cent female respondents. This reveals that male customers are visiting in Reliance Fresh comparatively more than female customers.

**Table 4.3 Distribution of customers of based on the gender**

**n =150**

| Sr. No. | Gender Distribution | Number | Percentage |
|---|---|---|---|
| 1 | Male | 86 | 57.33 |
| 2 | Female | 64 | 42.66 |
| **Total** | | 150 | 100.00 |

### 4.1.4 Distribution of customers according to their size of family

The family size of sample customers in Junagadh city is presented in Table 4.4. The highest per cent of customers, 57.33 per cent has small (up to 4 members) family size, followed by 32.66 per cent customers has medium (5 to 7 members) family size and only 10 per cent customers has large (more than 7 members) family size. Thus, it concluded that majority 90 per cent of the customers have small to medium size of family.

**Table 4.4 Distribution of customers according to their size of family**

**n = 150**

| Sr. No. | Size of family | Number | Percentage |
|---|---|---|---|
| 1 | Small (Up to 4 members) | 86 | 57.33 |
| 2 | Medium (5 to 7 members) | 49 | 32.66 |
| 3 | Large (More than 7 members) | 15 | 10.00 |
| **Total** | | 150 | 100.00 |

### 4.1.5 Distribution of customers according to their occupation

It can be seen from Table 4.5 that majority of the customers is from service sector with 49.33 per cent followed by business man (21.33 per cent), housemakers (21.5 per cent), and students (10.66 per cent). People from service sector covers most of the purchase in Reliance Fresh.

**Table 4.5 Distribution of customers according to their occupation**

**n = 150**

| Sr. No. | Occupation | Number | Percentage |
|---|---|---|---|
| 1 | Housemakers | 28 | 18.66 |
| 2 | Services | 74 | 49.33 |
| 3 | Business man | 32 | 21.33 |
| 4 | Students | 16 | 10.66 |
| **Total** | | 150 | 100.00 |

### 4.1.6 Distribution of customers according to their annual income

It can be seen from Table 4.6. that majority, 37.33 per cent of the customers have annual income up to Rs. 1,00,001 to Rs. 3,00,000, while 26.66 per cent, 20.66 per cent and 15.33 per cent of them are observed with up to Rs. 1,00,000, Rs. 3,00,001 to Rs. 5,00,000 and above Rs. 5,00,001 of annual income, respectively. From the above discussion, it can be inferred that around 79 per cent of the customers have annual income up to Rs. 5,00,000 as the most of the customers are dependent on service sector.

**Table 4.6 Distribution of customers according to their annual income**

**n = 150**

| Sr. No. | Annual income | Number | Percentage |
|---|---|---|---|
| 1 | Up to Rs. 1,00,000 | 40 | 26.66 |
| 2 | Rs. 1,00,001 to Rs. 3,00,000 | 56 | 37.33 |
| 3 | Rs. 3,00,001 to Rs. 5,00,000 | 23 | 15.33 |
| 4 | Above Rs. 5,00,001 | 31 | 20.66 |
| **Total** | | 150 | 100.00 |

### 4.1.7 Distribution of customers according to their frequency of visiting

Table 4.7 shows the frequency of purchases, most respondents indicate that their purchases are done unplanned with 66 per cent followed by 33.33 per cent customers are purchasing weekly, 14.66 per cent customers are purchasing daily and only 8 per cent customers are purchasing Reliance Fresh products at monthly basis.

**Table 4.7 Distribution of customers according to their frequency of visiting**

**n = 150**

| Sr. No. | Frequency of visiting | Number | Percentage |
|---|---|---|---|
| 1 | Daily | 22 | 14.66 |
| 2 | Weekly | 50 | 33.33 |
| 3 | Monthly | 12 | 8.00 |
| 4 | Unplanned | 66 | 44.00 |
| **Total** | | 150 | 100.00 |

## 4.2 PURCHASING PATTERN OF CUSTOMERS

With the emergence of the concept of retail in India several industries came in this segment, out of which many succeeded but some even failed due to some reason. Reliance Fresh store despite being a dominant format of fruits and vegetables, different good quality items stocks are also maintained which also plays a major role in adding a greater number of customers.

### 4.2.1 Reasons for shopping

There are many reasons given by respondents for shopping from Reliance Fresh, which are presented in Fig. 4.8, 35 per cent of respondents go for shopping when they are on the way, 22 per cent when they are free, 20 per cent when they need to buy, 12 per cent when they are having extra money,6 per cent of respondents go for shopping to accompany their friends and 5 per cent of respondents go for shopping due to loneliness. Majority of respondents purchase products from Reliance Fresh when they are on the way and when they are free.

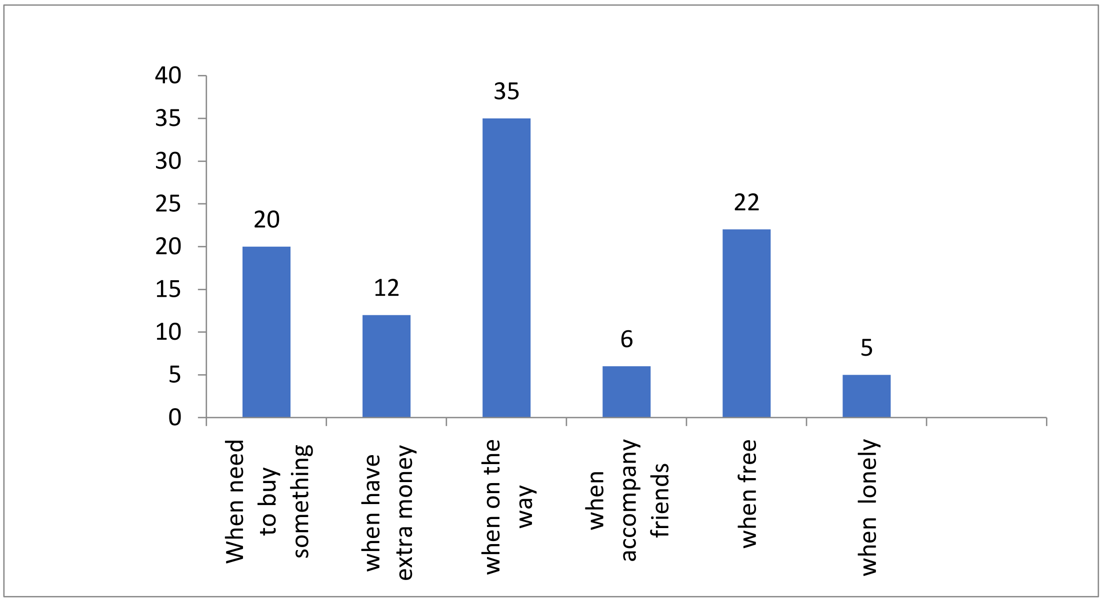


**Fig. 4.1 Reasons for shopping**

### 4.2.2 Frequency of Shopping

The result from Fig. 4.9 reveals that the respondents' shops at Reliance Fresh below 3 times within a month is 84 per cent, followed by 12 per cent between 3-6 times and 4 per cent above 6 times. It reveals that majority of the respondents go for shopping less than 3 time within a month.

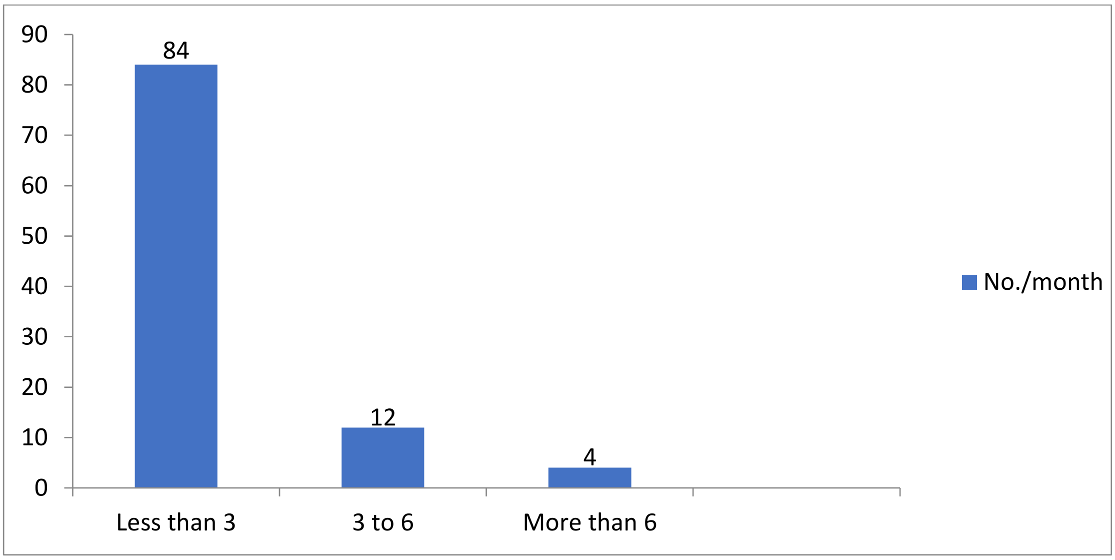


**Fig. 4.2 Frequency of shopping**

### 4.2.3 Time spends for shopping

The result from Fig. 4.10 reveals that 50 per cent of respondents spend less than 20 minutes per shopping at Reliance Fresh, 45 per cent spent 20-40 minutes and only 5 per cent spent more than 40 minutes. Majority of the respondents complete their shopping within 20 minutes.

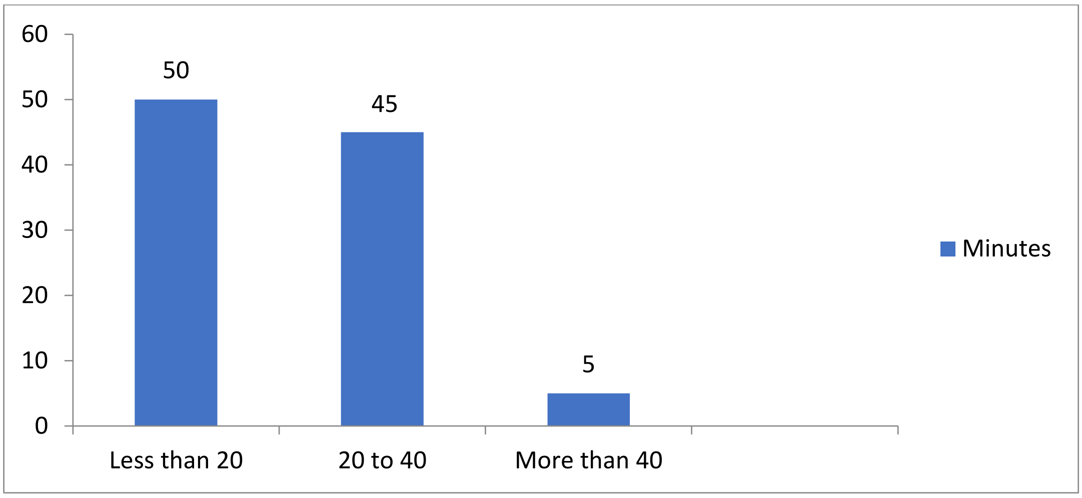


**Fig. 4.3 Time spends for shopping**

### 4.2.4 Amount spent for shopping

The result from Fig. 4.11 reveals that 95 per cent of respondents spend less than Rs. 9000 per month. 3 per cent spend Rs. 9000- Rs. 18000 per month and 2 per cent spend more than Rs. 18000 per month for shopping at Reliance Fresh. Thus, majority of respondents spend less than Rs. 9000 per month which may be due to Junagadh is a comparatively a small city and generally customers purchase low price products such as fruits, vegetables, cosmetics and staples etc. rather than high price products from Reliance Fresh.

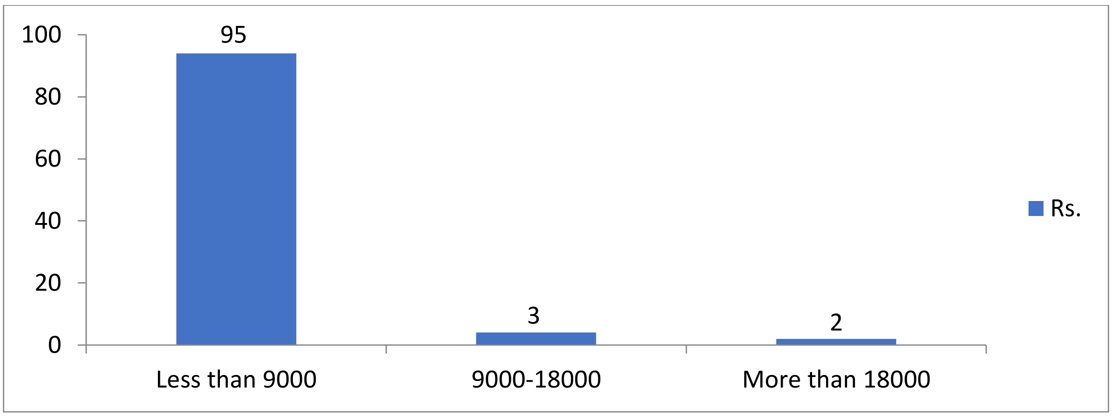


**Fig. 4.4 Amount spent for shopping**

### 4.2.5 Number of items purchase by respondents

The result from Fig. 4.12 shows that 72 per cent of respondents purchase less than 12 items, 23 per cent respondents purchase 12-24 items and 5 per cent respondents purchase more than 24 items per shopping at Reliance Fresh. Majority of respondents purchase less than 12 items per shopping from Reliance Fresh most of them are staples, biscuits, ready to eat food items and beverages etc. Biggest advantage of Reliance Fresh is that, no one goes there to purchase only one item they purchase in bulk which save their time and fruitful for company too.

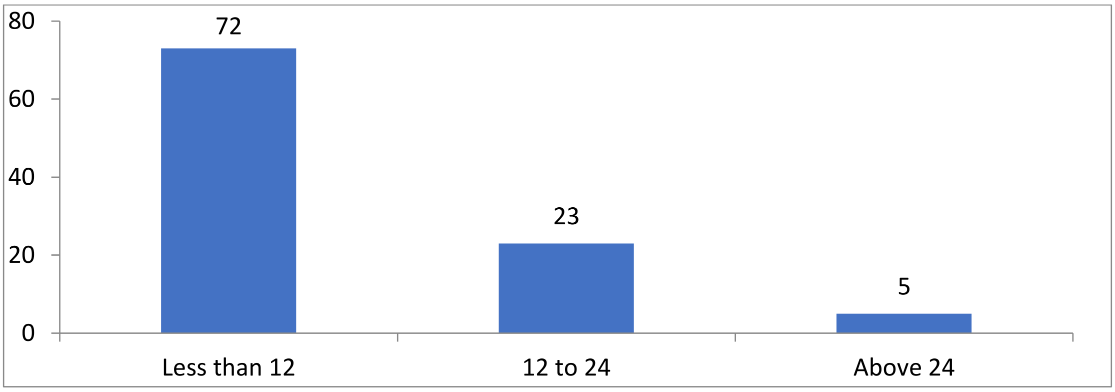


**Fig. 4.5 Number of items purchase by respondents**

### 4.2.6 Distance from home

Fig. 4.13 revealed that overall average distance of Reliance Fresh from the resident of customer is 6 Km. 77.33 per cent of respondents having the distance below 10 Km., 14.67 per cent having distance above 20 Km. and 8 per cent having distance between 10-20 Km. It shows, that majority of respondents having the distance below 10 Km. from their home.

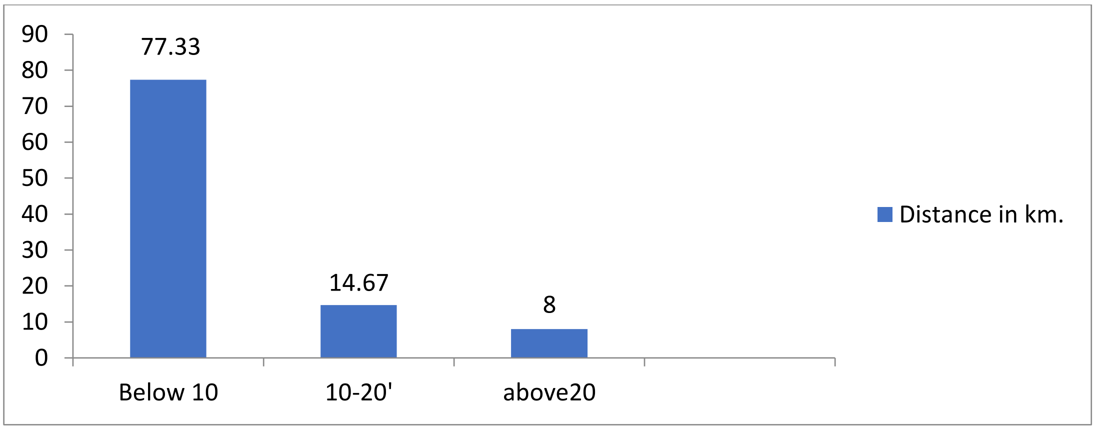


**Fig. 4.6 Distribution of customers based on distance from home**

## 4.3 FACTORS AFFECTING CUSTOMER PREFERENCE FOR PURCHASING OF FRUITS AND VEGETABLES

The individual statements of a study on the factor affecting customer preference for purchasing Reliance Fresh products was examined using factor analysis based on 150 individual statements and the reliability of the samples collected was tested for internal consistency of the grouping of the items.

### 4.3.1 KMO and Bartlett's test

Table 4.8 shows the sampling adequacy and significance value of processing variables and all remaining variables. KMO value justified that factor analysis can be applied for the data, i.e., sampling adequacy for customer preference is 60 per cent.

**Table 4.8: KMO and Bartlett's test for factor analysis**

| **KMO and Bartlett's Test** | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.602 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 924.168 |
| | Df | 348 |
| | Sig. | 0.00 |

### 4.3.1. Rotated component matrix

The Rotated component matrix for the variable relating to the preference of customers is presented in Table 4.9. It exhibits the rotated factor loadings for the 19 statements (factors) of the customer preference. It is clear from table that all the 19 statements have been extracted into five factors namely F1, F2, F3, F4, and F5. The factors with identified new names which influence customer preference is discussed in the following paragraph.

**Factor I Product Consciousness:** This factor explained 20.487 per cent of the variance of all the factors. This factor is inclusive of number of variables namely, good quality of fruits and vegetables, knowledge about fruits and vegetables and availability of fruits and vegetables. This factor having higher positive loading. Hence, the above said three factors with high loading on Factor I are characterized as **"Product Consciousness"**. This factor measures the product dimensions; which gives customer preference of Reliance Fresh. These types of customers are consciousness about different varieties of product and durability of the product. The highest loading (0.501) item in this factor is "Quality".

**Factor II Shopping Ambience and Price:** The second factor consists of variables such as Parking place, Service better than traditional retailers, visually appealing and physical facility, self-services and reasonable price of fruits and vegetables. These are the factors with higher positive loading on Factor II. Therefore, all the five factors with high loadings on Factor II are characterized as **"Shopping ambience and price"**. Price is one of the important determinants includes reasonable price with loading 0.438. The Eigen value for the above Factor II is 2.001 and the percentage variance is 7.409. It can be concluded that the factor's customer preference, parking place is the second variable.

**Factor III Payment Options and Services:** The significant loading statements under third factor (F3) are convenient operating location, good relationship with store owner, sellers provide necessary information, availability of payment options and polite and courteous staff. These are the important factors with higher positive loading on Factor III. Therefore, all the three variables with high loadings on Factor III are characterized as **"Payment options and Services"**. The Eigen value for the above Factor III is 1.625 and the percentage variance is 6.286.

**Factor IV Product image and Facility:** The statements such as SMS facility, attractive schemes & discounts and well-known image are the factors with higher positive loading on Factor IV. Hence, all the five variables with high loading on Factor IV are characterized as **"Product image and Facility"**. the Eigen value for the above Factor IV is 1.431 and the percentage variance is 5.287. It is to be concluded that SMS facility provide to customer is the third important factor in customer preference.

**Factor V Hygiene Consciousness:** This factor measures the hygiene dimensions which gives customer preference. The variables of customer preference such as Sufficient open space, Relaxing atmosphere and Cleanliness are the factors with higher positive loading on Factor V. There are three factors are very important for shopping malls. Therefore, all the four variables characterized as **"Hygiene Consciousness"**. The Eigen value for the above Factor V is 1.141 and the percentage variance is 4.847. It is to be concluded that sufficient open space is the fifth important factor for customer preference.

Overall, the matrix provides insight into which variables are most strongly associated with each component, which can be useful for understanding the underlying factors that influence customer perceptions and behavior.

**Table 4.9 Rotated Component Matrix**

| **Variables** | **Component** | | | | |
|---|---|---|---|---|---|
| | **F1** | **F2** | **F3** | **F4** | **F5** |
| Good quality of fruits and vegetables | **0.501** | 0.241 | 0.210 | 0.011 | 0.327 |
| Knowledge about fruits and vegetables | **0.430** | 0.356 | 0.398 | 0.136 | 0.055 |
| Availability of fruits and vegetables | **0.261** | 0.584 | 0.077 | 0.002 | 0.101 |
| Parking place | 0.110 | **0.765** | 0.210 | 0.301 | 0.170 |
| Service better than traditional retailers | 0.260 | **0.570** | 0.196 | 0.206 | 0.256 |
| Visually appealing and physical facility | 0.190 | **0.535** | 0.367 | 0.168 | 0.007 |
| Self-services | 0.015 | **0.519** | 0.160 | 0.245 | 0.223 |
| Reasonable price of fruits and vegetables | 0.305 | **0.438** | 0.249 | 0.019 | 0.116 |
| Convenient operating location | 0.195 | 0.220 | **0.582** | 0.257 | 0.019 |
| Good relationship with store owner | 0.291 | 0.136 | **0.578** | 0.251 | 0.177 |
| Sellers provide necessary information | 0.068 | 0.162 | **0.434** | 0.119 | 0.099 |
| Availability of payment options | 0.072 | 0.268 | **0.319** | 0.447 | 0.121 |

| | | | | | |
|---|---|---|---|---|---|
| Polite and courteous staff | 0.435 | 0.080 | **0.234** | 0.181 | 0.199 |
| SMS facility | 0.272 | 0.012 | 0.158 | **0.726** | 0.055 |
| Attractive schemes & discounts | 0.022 | 0.009 | 0.159 | **0.608** | 0.277 |
| Well known image | 0.241 | 0.044 | 0.009 | **0.447** | 0.086 |
| Sufficient open space | 0.119 | 0.087 | 0.057 | 0.019 | **0.766** |
| Relaxing atmosphere | 0.003 | 0.159 | 0.456 | 0.044 | **0.442** |
| Cleanliness | 0.406 | 0.238 | 0.200 | 0.211 | **0.377** |
| Eigen Value | **5.469** | **2.001** | **1.625** | **1.431** | **1.141** |
| Percentage Variance | **20.487** | **7.409** | **6.286** | **5.287** | **4.847** |
| Cumulative % Variance | **20.487** | **27.896** | **34.182** | **39.469** | **44.316** |

## 4.4 INVENTORY MANAGEMENT OF FRUITS AND VEGETABLES

The Table 4.10 represents the results of ABC analysis conducted on fruit products in a Reliance retail store. The analysis involved considering various factors such as the number of units sold, unit price, total usage value, and percentage contribution to overall sales. The products have been ranked based on their contribution to sales, and they have been assigned categories (A, B, or C) accordingly.

Pomegranate with 3560 units sold and a high unit price of 89.6, pomegranates have the highest usage value of 318,916.7 and contribute to 27.3 per cent of the overall sales, securing the top rank and falling into Category A.

Apple products, with 2590 units sold and a unit price of 80.0, have a usage value of 207,200.0, accounting for 17.8 per cent of the overall sales. They are ranked second and also fall into Category A.

Mangoes, with 3350 units sold and a unit price of 46.0, have a usage value of 154,100.0, representing 13.2 per cent of the total sales. They rank third and are classified as Category B.

Bananas, with 5500 units sold and a unit price of 25.5, have a usage value of 140,500.0, contributing to 12.0 per cent of the overall sales. They are ranked fourth and also fall into Category B.

Oranges, with 1700 units sold and a unit price of 56.3, have a usage value of 95,625.0, accounting for 8.2 per cent of the total sales. They rank fifth and fall into Category B.

Lemon, sapota, papaya, guava, musk melon and watermelon these fruit products have lower usage values and lower percentages of contribution to sales. They are ranked sixth to eleventh, falling into Category C.

The results of the ABC analysis provide insights into the performance and categorization of fruit products in the Reliance retail store. The analysis highlights the top-selling products that contribute significantly to sales (Category A). Pomegranate and apple, with their high unit prices and substantial usage values, stand out as the leading contributors. Mangoes and bananas, while not as high in unit price, still make a significant contribution to sales and fall into Category B. These products should receive moderate attention in terms of inventory management and sales strategies. The remaining fruits, including orange, lemon, sapota, papaya, guava, musk melon, and watermelon, have relatively lower usage values and percentages of contribution to sales. These products are categorized as Category C and require lesser attention in terms of inventory management and sales strategies. Retailers can utilize the insights from the ABC analysis to allocate resources effectively, prioritize inventory management, and focus on maximizing sales and profitability. This analysis helps in identifying high-value products that should be closely monitored and managed to ensure their availability to customers and optimize revenue. Additionally, it aids in identifying products that may require adjustments in pricing, promotions, or inventory control strategies to improve their performance.

**Table 4.10 Output of ABC analysis of fruits**

| FRUITS | UNITS ( Kg) | UNIT PRICE (Rs.) | TOTAL USAGE (Rs.) | PERCENTAGE | RANK | CUMULATIVE PERCENTAGE | CATEGORY |
|---|---|---|---|---|---|---|---|
| **Pomegranate** | 3560 | 89.6 | 318916.7 | 27.3 | 1 | 27.3 | A |
| **Apple** | 2590 | 80.0 | 207200.0 | 17.8 | 2 | 45.1 | A |
| **Mango** | 3350 | 46.0 | 154100.0 | 13.2 | 3 | 58.3 | B |
| **Banana** | 5500 | 25.5 | 140500.0 | 12.0 | 4 | 70.3 | B |
| **Orange** | 1700 | 56.3 | 95625.0 | 8.2 | 5 | 78.5 | B |
| **Lemon** | 830 | 95.7 | 79442.9 | 6.8 | 6 | 85.3 | C |
| **Sapota** | 1750 | 35.0 | 61250.0 | 5.2 | 7 | 90.6 | C |
| **Papaya** | 3050 | 16.0 | 48800.0 | 4.2 | 8 | 94.7 | C |
| **Guava** | 1350 | 22.0 | 29700.0 | 2.5 | 9 | 97.3 | C |
| **Musk melon** | 1040 | 15.0 | 15600.0 | 1.3 | 10 | 98.6 | C |
| **Watermelon** | 1850 | 8.4 | 15540.0 | 1.3 | 11 | 100.0 | C |
| **Total** | | | 1166674.5 | 100 | | | |

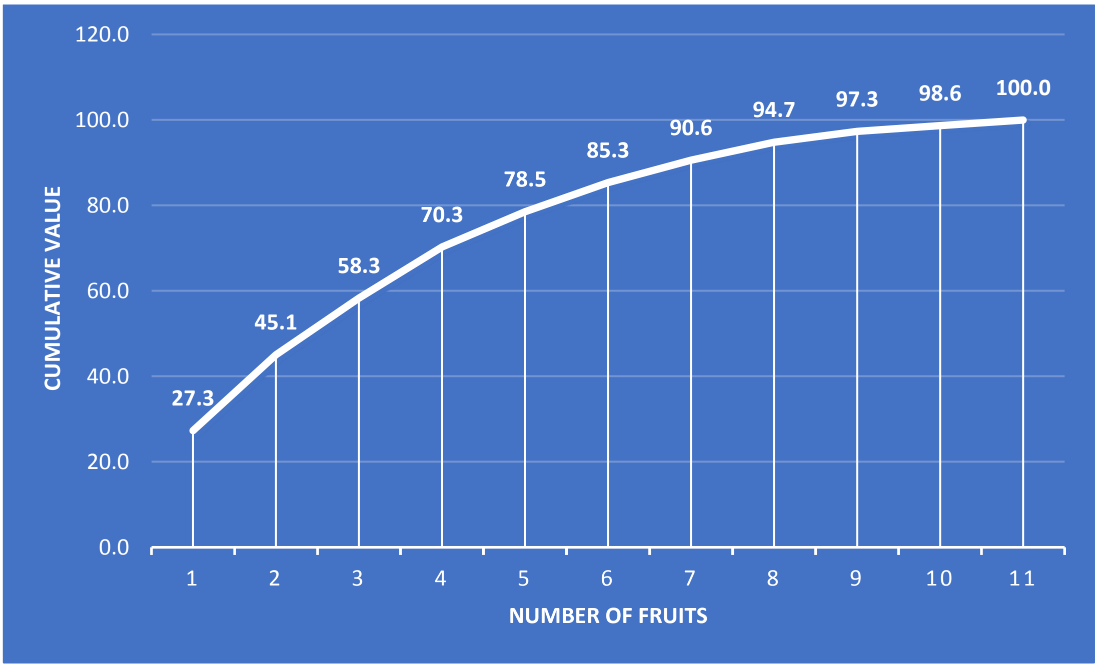


**Fig. 4.7 Cumulative percentage of usage of fruits in Reliance Fresh**

The provided Table 4.11 represents the results of ABC analysis conducted on vegetable products in a Reliance retail store. The analysis involves considering factors such as the quantity sold, price per unit, total usage value, and percentage contribution to overall sales. The products are ranked based on their contribution to sales, and they are assigned categories (A, B, or C) accordingly.

Ginger with a quantity sold of 1410 and a price per unit of 111.9, has a usage value of 157,743.8, contributing to 19.2 per cent of the overall sales. It secures the top rank and falls into Category A.

Onions, with a quantity sold of 8450 and a price per unit of 14.3, have a usage value of 121,116.7, accounting for 14.7 per cent of the total sales. They rank second and are also classified as Category A.

Potatoes, with a quantity sold of 12,175 and a price per unit of 9.3, have a usage value of 113,633.3, representing 13.8 per cent of the overall sales. They rank third and fall into Category A.

Tomatoes, with a quantity sold of 11,300 and a price per unit of 9.9, have a usage value of 112,058.3, contributing to 13.6 per cent of the total sales. They rank fourth and are categorized as Category A.

Cucumber, garlic, spinach and carrot these vegetable products have lower usage values and percentages of contribution to sales. They are ranked fifth to eighth, falling into Category B.

Okra, coriander, chilli, cluster bean, brinjal, cauliflower, cabbage and bottle gourd these vegetables have even lower usage values and percentages of contribution to sales. They are ranked ninth to sixteenth, falling into Category C.

The ABC analysis of vegetable products in the Reliance retail store provides insights into the performance and categorization of these products. The analysis identifies the top-selling products (Category A), which contribute significantly to sales and should be given priority in terms of inventory management and sales strategies.

Ginger, onion, potato, and tomato emerge as the top contributors to overall sales, demonstrating their popularity and demand among customers. These products should be closely monitored to ensure their availability and maximize profitability.

The vegetables ranked in Category B, including cucumber, garlic, spinach, and carrot, have moderate usage values and contribute a significant but slightly lower proportion to overall sales. Retailers should pay attention to managing the stock levels of these products to meet customer demand effectively.

Category C includes vegetables with relatively lower usage values and contributions to sales. Retailers can adjust their inventory control strategies for these items accordingly, ensuring sufficient availability without excessive stock levels.

By utilizing the insights from the ABC analysis, retailers can allocate resources effectively, optimize inventory management, and focus on maximizing sales and profitability. The analysis assists in identifying the key products that should be prioritized and managed closely, as well as identifying opportunities for potential improvements in inventory control and sales strategies.

**Table 4.11 Output of ABC analysis of Vegetables**

| VEGETABLES | QTY ( kg) | PRICE (Rs.) | TOTAL USAGE (Rs.) | PERCENTAGE | RANK | CUMULATIVE FREQUENCY | CATEGORY |
|---|---|---|---|---|---|---|---|
| Ginger | 1410 | 111.9 | 157743.8 | 19.2 | 1 | 19.2 | A |
| Onion | 8450 | 14.3 | 121116.7 | 14.7 | 2 | 33.9 | A |
| Potato | 12175 | 9.3 | 113633.3 | 13.8 | 3 | 47.7 | A |
| Tomato | 11300 | 9.9 | 112058.3 | 13.6 | 4 | 61.4 | A |
| Cucumber | 3720 | 14.3 | 53010.0 | 6.4 | 5 | 67.8 | B |
| Garlic | 520 | 98.3 | 51133.3 | 6.2 | 6 | 74.0 | B |
| Spinach | 2020 | 19.8 | 39951.1 | 4.9 | 7 | 78.9 | B |
| Carrot | 1025 | 29.3 | 30066.7 | 3.7 | 8 | 82.5 | B |
| Okra | 1400 | 19.6 | 27440.0 | 3.3 | 9 | 85.9 | C |
| Coriander | 780 | 31.6 | 24613.3 | 3.0 | 10 | 88.9 | C |
| Chilli | 1485 | 15.8 | 23388.8 | 2.8 | 11 | 91.7 | C |
| Cluster bean | 405 | 50.0 | 20250.0 | 2.5 | 12 | 94.2 | C |
| Brinjal | 1400 | 11.8 | 16450.0 | 2.0 | 13 | 96.2 | C |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Cauliflower | 925 | 15.0 | 13875.0 | 1.7 | 14 | 97.8 | C |
| Cabbage | 850 | 10.7 | 9066.7 | 1.1 | 15 | 99.0 | C |
| Bottle gourd | 720 | 12.3 | 8820.0 | 1.1 | 16 | 100.0 | C |
| **TOTAL** | | | **822616.94** | | | | |

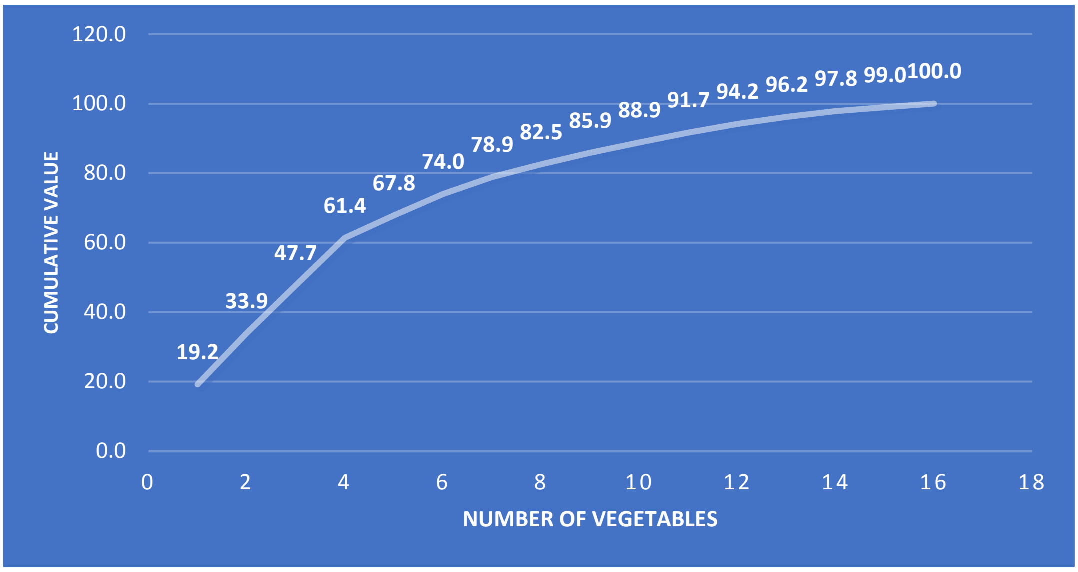


**Fig. 4.8 Cumulative percentage of usage of vegetables**

### 4.4.1 EOQ ANALYSIS

The EOQ (Economic Order Quantity) analysis table provides a detailed breakdown of different fruits based on their optimal order quantities and associated costs. The analysis considers a demand of 35,000 units, a cost of ₹50 per unit, and a holding cost of 0.25. The calculated EOQ is approximately 3,741.6 units.

Examining the individual fruits, Pomegranate has a quantity of 3,560 units with a unit price of ₹89.6. The holding cost for pomegranate is ₹445, and the ordering cost is ₹880.9, resulting in a total cost of ₹1,325.9. Similarly, apple has a quantity of 2,590 units with a unit price of ₹80. The holding cost is ₹323.75, and the ordering cost is ₹1,081.1, making the total cost ₹1,404.8. Moving on to mango, it has a quantity of 3,500 units with a unit price of ₹46. The holding cost for mango is ₹437.5, and the ordering cost is ₹460.0, leading to a total cost of ₹897.5. For banana, the quantity is 5,500 units with a unit price of ₹25.5. The holding cost is ₹687.5, and the ordering cost is ₹162.3, resulting in a total cost of ₹849.8. In the case of orange, there are 1,700 units with a unit price of ₹56.3. The holding cost is ₹212.5, and the ordering cost is ₹1,159.1, resulting in a total cost of ₹1,371.6. Lemon has a quantity of 830 units with a unit price of ₹95.7. The holding cost is ₹103.75, and the ordering cost is ₹4,035.5, making the total cost ₹4,139.3. Sapota has a quantity of 1,750 units with a unit price of ₹35. The holding cost is ₹218.75, and the ordering cost is ₹700.0, resulting in a total cost of ₹918.8. Papaya has a quantity of 3,050 units with a unit price of ₹16. The holding cost is ₹381.25, and the ordering cost is ₹183.6, making the total cost ₹564.9. Guava has a quantity of 1,350 units with a unit price of ₹22. The holding cost is ₹168.75, and the ordering cost is ₹570.4, resulting in a total cost of ₹739.1. Musk melon has a quantity of 1,040 units with a unit price of ₹15. The holding cost is ₹130, and the ordering cost is ₹504.8, making the total cost ₹634.8. Lastly, watermelon has a quantity of 1,850 units with a unit price of ₹8.4. The holding cost is ₹231.25, and the ordering cost is ₹158.9, resulting in a total cost of ₹390.2.

**Table 4.12 Quantity demanded of fruits**

| **Demand** | **Cost demanded** | **Holding cost** | **EOQ value** |
|---|---|---|---|
| 35000 | 50 | 0.25 | 3741.6 |

**Table 4.13 EOQ analysis of fruits**

| **Fruits** | **Units (kg)** | **Unit price (Rs.)** | **Holding cost (Rs.)** | **Ordering cost (Rs.)** | **Total cost (Rs.)** |
|---|---|---|---|---|---|
| **Pomegranate** | 3560 | 89.6 | 445 | 880.9 | 1325.9 |
| **Apple** | 2590 | 80 | 323.75 | 1081.1 | 1404.8 |
| **Mango** | **3500** | **46** | **437.5** | **460.0** | **897.5** |
| **Banana** | 5500 | 25.5 | 687.5 | 162.3 | 849.8 |
| **Orange** | 1700 | 56.3 | 212.5 | 1159.1 | 1371.6 |
| **Lemon** | 830 | 95.7 | 103.75 | 4035.5 | 4139.3 |
| **Sapota** | 1750 | 35 | 218.75 | 700.0 | 918.8 |
| **Papaya** | 3050 | 16 | 381.25 | 183.6 | 564.9 |
| **Guava** | 1350 | 22 | 168.75 | 570.4 | 739.1 |
| **Musk melon** | 1040 | 15 | 130 | 504.8 | 634.8 |
| **Watermelon** | 1850 | 8.4 | 231.25 | 158.9 | 390.2 |

The EOQ (Economic Order Quantity) analysis table presents the results of analysing the optimal order quantities and costs for different vegetables. With a demand of 37,000 units, a unit cost of ₹25, and a holding cost of 0.5, the calculated EOQ is approximately 1,923.538406 units. The EOQ represents the ideal quantity that minimizes the total cost of ordering and holding inventory. It helps businesses determine the most efficient order quantity to balance the costs of ordering new stock and holding excess inventory.

Examining the individual vegetables, Ginger has an optimal order quantity of 1,410 units with a unit price of ₹111.9. The holding cost for ginger is ₹352.5, and the ordering cost is ₹656.0, resulting in a total cost of ₹1,008.5. Similarly, onion has an optimal order quantity of 8,450 units with a unit price of ₹14.3. The holding cost for onion amounts to ₹2,112.5, and the ordering cost is ₹109.5, making the total cost ₹2,222.0. Moving on to potato, the recommended order quantity is 12,175 units with a unit price of ₹9.3. The holding cost for potato is ₹3,043.75, and the ordering cost is ₹76.0, resulting in a total cost of ₹3,119.7. For tomato, the optimal order quantity is 11,300 units with a unit price of ₹9.9. The holding cost for tomato is ₹2,825, and the ordering cost is ₹81.9, leading to a total cost of ₹2,906.9. Examining cucumber, it has an optimal order quantity of 3,720 units with a unit price of ₹14.3. The holding cost for cucumber amounts to ₹930, and the ordering cost is ₹248.7, resulting in a total cost of ₹1,178.7. Garlic has a quantity of 520 units with a unit price of ₹98.3. The holding cost for garlic is ₹130, and the ordering cost is ₹1,778.8, making the total cost ₹1,908.8. Spinach has a quantity of 2,020 units with a unit price of ₹19.8. The holding cost for spinach is ₹505, and the ordering cost is ₹457.9, resulting in a total cost of ₹962.9. Carrot has an optimal order quantity of 1,025 units with a unit price of ₹29.3. The holding cost for carrot is ₹256.25, and the ordering cost is ₹902.4, making the total cost ₹1,158.7. Continuing to okra, it has an optimal order quantity of 1,400 units with a unit price of ₹19.6. The holding cost for okra is ₹350, and the ordering cost is ₹660.7, resulting in a total cost of ₹1,010.7. Coriander has a quantity of 780 units with a unit price of ₹31.6. The holding cost for coriander is ₹195, and the ordering cost is ₹1,185.9, making the total cost ₹1,380.9. Chilli has an optimal order quantity of 1,485 units with a unit price of ₹15.8. The holding cost for chilli is ₹371.25, and the ordering cost is ₹622.9, resulting in a total cost of ₹994.1. Cluster bean has a quantity of 405 units with a unit price of ₹50.0. The holding cost for cluster bean is ₹101.25, and the ordering cost is ₹2,284.0, making the total cost ₹2,385.2. Brinjal has an optimal order quantity of 1,400 units with a unit price of ₹11.8. The holding cost for brinjal is ₹350, and the ordering cost is ₹660.7, resulting in a total cost of ₹1,010.7. Moving on to cauliflower, it has a quantity of 925 units with a unit price of ₹15.0. The holding cost for cauliflower is ₹231.25, and the ordering cost is ₹1,000.0, leading to a total cost of ₹1,231.3. Cabbage has an optimal order quantity of 850 units with a unit price of ₹10.7. The holding cost for cabbage is ₹212.5, and the ordering cost is ₹1,088.2, resulting in a total cost of ₹1,300.7. Lastly, bottle gourd has a quantity of 720 units with a unit price of ₹12.3. The holding cost for bottle gourd is ₹180, and the ordering cost is ₹1,284.7, making the total cost ₹1,464.7.

**Table 4.14 Quantity demanded of vegetables**

| Demand (kg) | Cost demanded (kg) | Holding cost (kg) | EOQ value |
|---|---|---|---|
| 37000 | 25 | 0.5 | 1923.53 |

**Table 4.15 EOQ analysis of vegetables**

| Vegetables | Units (kg) | Unit price (Rs.) | Holding cost (Rs.) | Ordering cost (Rs.) | Total cost (Rs.) |
|---|---:|---:|---:|---:|---:|
| Ginger | 1410 | 111.9 | 352.5 | 656.0 | 1008.5 |
| Onion | 8450 | 14.3 | 2112.5 | 109.5 | 2222.0 |
| Potato | 12175 | 9.3 | 3043.75 | 76.0 | 3119.7 |
| Tomato | 11300 | 9.9 | 2825 | 81.9 | 2906.9 |
| Cucumber | 3720 | 14.3 | 930 | 248.7 | 1178.7 |
| Garlic | 520 | 98.3 | 130 | 1778.8 | 1908.8 |
| **Spinach** | **2020** | **19.8** | **505** | **457.9** | **962.9** |
| Carrot | 1025 | 29.3 | 256.25 | 902.4 | 1158.7 |
| Okra | 1400 | 19.6 | 350 | 660.7 | 1010.7 |
| Coriander | 780 | 31.6 | 195 | 1185.9 | 1380.9 |
| Chilli | 1485 | 15.8 | 371.25 | 622.9 | 994.1 |
| Cluster bean | 405 | 50.0 | 101.25 | 2284.0 | 2385.2 |
| Brinjal | 1400 | 11.8 | 350 | 660.7 | 1010.7 |
| Cauliflower | 925 | 15.0 | 231.25 | 1000.0 | 1231.3 |
| Cabbage | 850 | 10.7 | 212.5 | 1088.2 | 1300.7 |
| Bottle gourd | 720 | 12.3 | 180 | 1284.7 | 1464.7 |

## 4.5 CUSTOMER SATISFACTION

The three-point Likert's scale technique was used to study the satisfaction level of customers toward fruits and vegetables of Reliance Fresh. The details of satisfaction of the sample respondents are given in the following Tables. The various factors such as Availability, Quality, Freshness, Varieties, Price, Promotion Offers, Store Location, Personnel, Availability of wide range of products, promotion or advertisements are appealing or not, quality and style of advertising is impressive and adequate for attracting every age group, Adequate platforms are used for advertisement and promotions, Sales promotion schemes are satisfactory are shown below.

Based on the Likert scale analysis of responses from 150 respondents, the factors influencing customers' perceptions of fruits and vegetables can be discussed in rank order. Store location was ranked first, with an average score of 384, indicating its significant influence in attracting customers. Adequate platforms for advertisement and promotions secured the second rank with an average score of 383, highlighting the effectiveness of the chosen platforms. Availability of fruits and vegetables ranked third, scoring an average of 378, suggesting a favourable availability of produce. The varieties of fruits and vegetables ranked fourth with an average score of 375, indicating a wide range of options for customers. The quality and style of advertising received the fifth rank, scoring an average of 372, demonstrating the effectiveness of the advertising strategies employed. Price ranked seventh, scoring 356 on average, suggesting customers found the prices reasonable. The appeal of promotions and advertisements ranked eighth with an average score of 345, indicating a positive response to the marketing efforts. Personnel services, support, and communication ranked ninth with an average score of 341, reflecting moderately satisfactory interactions. The availability of a wide range of fruits and vegetables ranked eleventh, scoring an average of 338, suggesting a moderately favourable response. The promotion offers, such as buy 1 get 1 free or discounts, ranked twelfth, receiving an average score of 335, indicating a relatively lower level of appeal. Finally, customer satisfaction with sales promotion schemes ranked thirteenth, scoring the lowest average of 327. These findings highlight the significance of store location, availability, variety, and effective marketing strategies in shaping customers' perceptions of fruits and vegetables.

**Table 4.16 Customer satisfaction level**

| S. No. | Factors | S (3) | MS (2) | D (1) | Average score | Rank |
|---|---|---|---|---|---|---|
| **1** | Adequate platforms are used for advertisement and promotions | 87 | 59 | 4 | 383 | 2 |
| **2** | Availability of fruits and vegetables | 88 | 52 | 10 | 378 | 3 |
| **3** | Availability of wide range of fruits and vegetables | 56 | 76 | 18 | 338 | 11 |
| **4** | Freshness of fruits and vegetables | 56 | 78 | 16 | 340 | 10 |
| **5** | Personnel (Services, Support, Communication) | 53 | 85 | 12 | 341 | 9 |
| **6** | Price of fruits and vegetables | 52 | 76 | 22 | 356 | 7 |
| **7** | Promotion Offers (Buy 1 get 1 free, Discounts, Other Scheme) | 45 | 95 | 10 | 335 | 12 |
| **8** | Quality of fruits and vegetables | 76 | 62 | 12 | 364 | 6 |
| **9** | Sales promotion schemes are satisfactory | 45 | 87 | 18 | 327 | 13 |
| **10** | Store location | 89 | 56 | 5 | 384 | 1 |
| **11** | The promotion or advertisements are very appealing too | 60 | 75 | 15 | 345 | 8 |
| **12** | The quality and style of advertising is impressive | 77 | 68 | 5 | 372 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | and adequate for attracting every age group | | | | | |
| **13** | Varieties of fruits and vegetables | 82 | 61 | 7 | 375 | 4 |

# CHAPTER V

## SUMMARY AND CONCLUSION

Retail is the sale of goods to end users, not for resale, but for use and consumption by the purchaser. The word retail is derived from the French word retailer, meaning to cut a piece off or to break bulk. In simple terms, it implies a first- hand transaction with the customer. Retailing can be defined as the buying and selling of goods and services. It can also be defined as the timely delivery of goods and services demanded by consumers at prices that are competitive and affordable. Thus, retailing can be said to be the interface between the producer and the individual consumer buying for personal consumption. This excludes direct interface between the manufacturers and institutional buyers such as the government and other bulk customers. Retailing is the last link that connects the individual consumers with the manufacturing and distribution chain. Retailing is the largest private industry in India and second largest employer after agriculture. The sector contributes to around 10 per cent of GDP and 6-7 per cent of employment. With over 15 million retail outlets,India has the highest retail outlet density in the world. This sector witnessed significant development in the past 10 years – from small unorganized family-owned retail formats to organized retailing.

The biggest opportunities for international brands are in the food and beverage segment and also in the jewellery segment. The business of fashion accounts for major position in total organized retail segment in the country. Hence, this retailing has indeed been responsible for single-handedly driving the business of retail in India.

Reliance Fresh is a supermarket chain which forms part of the retail business of Reliance Industries of India which is headed by the corporate giant Mukesh Ambani. Since its inception in 2006, Reliance Retail Limited (RRL) has grown into an organization that caters to millions of customers, thousands of farmers and vendors.

This study is about offers, schemes and strategies which mostly attracted the customers and this will also give more understanding about taste, preference and psychological behaviour of customers. The study entitled “Purchasing pattern and inventory management of fruits and vegetables at Reliance Fresh:

5.1 Socio-economic profile

5.2 Purchasing pattern of customers

5.3 Factor affecting customer preference for purchasing of fruits and vegetables

5.4 Inventory management of fruits and vegetables

5.5 Customer satisfaction

Convenience sampling was adopted as per the objective of the study. Jaipur district was selected for convenience. Factor affecting customer preference for purchasing fruits and vegetables was examined using factor analysis (KMO and Bartlett's Test) based on 150 individual statements .ABC analysis and EOQ analysis were used for inventory management of fruits and vegetables.

## 5.1 MAJOR FINDINGS OF THE STUDY

The major findings emerged from the study are summarized under following heads.

## 5.1 SOCIO-ECONOMIC PROFILE

Reliance Fresh in Jaipur city primarily attracts young customers, with 60 per cent of them belonging to the age group of up to 35 years. Majority of customers (56%) have education up to graduation level. Male customers slightly outnumber female customers, accounting for 57.33 per cent and 42.66 per cent respectively. The family size of the customers mostly consists of small to medium-sized families, with 57.33 per cent having up to four members. Customers from the service sector contribute the most to purchases (49.33%), followed by business owners (21.33%), homemakers (21.5%), and students (10.66%). The majority of customers (79%) have an annual income up to Rs. 5,00,000 with a significant dependency on the service sector. Unplanned purchases are the most common (66%), followed by weekly (33.33%), daily (14.66%), and monthly (8%) purchases.

## 5.2 PURCHASING PATTERN OF CONSUMERS

Customers at Reliance Fresh in Jaipur city often shop when they are on the way or have free time. The majority visit the store less than three times per month, spend less than 20 minutes per shopping trip, and have a monthly expenditure below Rs. 9000. They tend to purchase a smaller number of items, primarily staples and convenience food items. The average distance between their residences and the store is 6 km, with the majority living within 10 km. These insights provide valuable information for understanding customer behaviour and can guide strategies to improve customer experience and meet their needs effectively.

## 5.3 FACTORS AFFECTING CONSUMER PREFERENCE FOR PURCHASING OF FRUITS AND VEGETABLES

The factor analysis revealed five key factors that influence customer preferences at Reliance Fresh: Product Consciousness, Shopping Ambience and Price, Payment Options and Services, Product Image and Facility, and Hygiene Consciousness. These factors reflect customers' priorities regarding product quality, shopping environment and affordability, payment options and customer service, product image and promotions, and hygiene standards. Understanding these factors can help Reliance Fresh improve their strategies and enhance the overall customer experience.

## 5.4 INVENTORY MANAGEMENT OF FRUITS AND VEGETABLES

The ABC analysis conducted on fruit products in a Reliance retail store revealed the categorization of products based on their contribution to sales. Pomegranates and apples ranked highest in Category A, followed by mangoes, bananas, and oranges in Category B. Lemon, sapota, papaya, guava, musk melon, and watermelon were categorized as Category C due to their lower usage values and contributions to sales. This analysis provides valuable insights for inventory management and sales strategies, highlighting the top-selling products that require closer attention.

Similarly, the ABC analysis conducted on vegetable products in the same store identified ginger, onions, potatoes, and tomatoes as the top contributors in Category A. Cucumber, garlic, spinach, and carrot fell into Category B, while okra, coriander, chilli, cluster bean, brinjal, cauliflower, cabbage, and bottle gourd were categorized as Category C. These findings can guide retailers in efficiently managing inventory and implementing sales strategies for optimal results.

Overall, the ABC analysis helps retailers allocate resources effectively, prioritize inventory management, and focus on maximizing sales and profitability. By identifying high-value products and products that require adjustments, retailers can ensure availability, improve performance, and meet customer demands.

The EOQ (Economic Order Quantity) analysis tables provide insights into the optimal order quantities and associated costs for different fruits and vegetables in a retail store. The EOQ represents the ideal quantity that minimizes the total cost of ordering and holding inventory. By considering factors such as demand, unit cost, and holding cost, businesses can make informed decisions about inventory management and ordering strategies.

For fruits, the analysis reveals that mango has the lowest total cost, considering both purchasing and storage costs, at the calculated EOQ. Mango emerges as the most cost-effective fruit to stock and meet the demand. On the other hand, for vegetables, spinach has the lowest total cost at the calculated EOQ, making it the recommended vegetable to purchase and manage inventory.

### 5.5 COUSTOMER STATISFICATION

The findings revealed that store location had the greatest influence on attracting customers, followed by the effectiveness of advertisement and promotion platforms. Availability of fruits and vegetables ranked third, while the variety of options offered ranked fourth. The quality and style of advertising were perceived positively.

Customers found the prices reasonable, and there was a positive response to promotions and advertisements. However, there is room for improvement in personnel services and communication with customers. The availability of a wide range of products received a moderately favourable response.

Promotion offers and sales promotion schemes ranked lower in appeal among customers.

### 5.2.1 CONCLUSION

In summary, factors such as product quality, shopping environment, affordability, payment options, product image and hygiene standards influence customer preferences at Reliance Fresh. From the ABC analysis for fruits, pomegranates and apples were ranked highest in Category A . Similarly, for vegetables, ginger, onions, potatoes, and tomatoes were identified as top contributors in Category A. For fruits, the EOQ analysis reveals that mango has the lowest total cost, considering both purchasing and storage costs. Mango emerges as the most cost-effective fruit to stock and meet the demand. On the other hand, for vegetables, spinach has the lowest total cost at the calculated EOQ, making it the recommended vegetable to purchase and manage inventory. Overall, customers at Reliance Fresh are generally satisfied with store location, availability, variety, pricing, and promotional efforts. Improvements can be made in personnel services and communication to enhance the overall customer experience.