

EXPECTATIONS AND PERCEPTIONS  
TOWARDS ONLINE SHOPPING – A STUDY  
OF ONLINE SHOPPERS IN SELECT CITIES OF  
GUJARAT

A Thesis submitted to Gujarat Technological University

for the Award of

Doctor of Philosophy

in

Management

by

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149997292014

under supervision of

Dr. Kerav Pandya



**GUJARAT TECHNOLOGICAL UNIVERSITY**  
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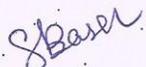
  
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A THESIS  
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- A STUDY OF ONLINE SHOPPERS IN SELECT CITIES OF GUJARAT

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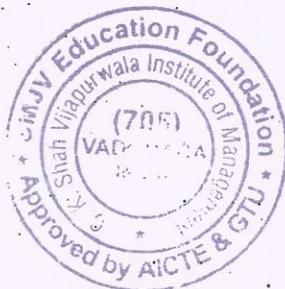
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# **ABSTRACT**

The electronic commerce (e commerce) has revolutionized the shopping strategies all over the world. The business deals are done very fast and the shopping is done instantaneously on a click of the mouse through internet. Online shopping involves the buyer purchasing the product from the seller through the means of internet. The present research work concerns with the study of factors affecting online shoppers. The online market and industry has a lot of scope for growth in the state of Gujarat state where business and enterprises are well developed. This research study was done by considering online shoppers of Gujarat state. The research makes an attempt to understand if the perceptions of online shoppers towards online shopping meet their expectations towards it and if the demographic factors of education, income and occupation have impact on the twenty one considered determinants of perception. The responses were collected from 500 online shoppers from five major cities of Gujarat, namely, Vadodara, Ahmedabad, Anand, Surat, Rajkot. The research data thus collected from this survey was further analysed by applying statistical tests.

The findings and suggestions from the present research are developed for online marketers for reducing the gap between the expectations and perceptions of online customers towards online shopping and thereby increasing the customer satisfaction which can further lead to greater growth and development of the online market and industry.

## **Acknowledgement**

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## **List of Abbreviations**

<b>Sr. No.</b>	<b>Abbreviation</b>	
1	USD	United States Dollar
2	B2B	Business to business
3	B2C	Business to consumer
4	C2C	Consumer to consumer
5	C2B	Consumer to business
6	C2A	Consumer to Administration
7	B2A	Business to Administration
8	GDP	Gross Domestic Product
9	CAGR	Compound Annual Growth Rate
10	Bn	Billion
11	Mn	Million
12	K	Thousand
13	PIN	Personal Identification Number
14	FDI	Foreign Direct Investment
15	CoD	Cash on delivery
16	PE	Private Equity

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**CHAPTER 1**  
**INTRODUCTION**

# CHAPTER 1

## Introduction

### 1.1 Introduction

In this era of technology, internet has become a necessity in many of the routine activities such as paying bills online, booking tickets for travel or entertainment, browsing for information, study purpose, purchasing, viewing and sharing messages through the popular mobile application whatsapp and many others. In today's world online shopping has been made possible by the presence of Internet. Internet has obviated the need for the buyer and seller to be present at the same place at the same time. The buyer and seller need not see each other or know each other. The geographical boundaries have been obliterated as buyer in one continent can easily contact, interact with and buy products from sellers in other continents. The buyer does not have to follow any specific time zones for purchasing as the online shops are open round the clock.

### 1.2 The Story of Internet and World Wide Web

A group of scientists working for the US Defense Advanced Research Project Agency (DARPA) (Cerf,1996) first developed the internet in 1968. Vint Cerf is famously known as a "Father of the Internet," Cerf is the co-designer of the TCP/IP protocols and the architecture of the Internet. Cerf and his colleague, Robert E. Kahn are known for finding the internet. The internet known as ARPANET was created at that time to connect various university and government computer centers across USA. (Amin B.Z., 2013<sup>13</sup>)

Michael Aldrich, an English entrepreneur first introduced the concept of online shopping in 1979. He made arrangement to connect a modified domestic TV to a real time transaction processing computer through a domestic telephone line. It allowed outside world to interact with corporate businesses for transactions and for messaging and accessing information pertaining to the deal which hitherto was inaccessible. (Zarina N.Z., 2017<sup>105</sup>)

Internet is a system of worldwide computer networks, connected locally as well globally, through standardized protocols of technology and communication. The internet uses protocols that are standard and open. The internet enables communication as well as sharing and transfer of information between users of different computers or similar

devices. The internet is useful in various aspects of marketing such as market research, product promotion, advertising, customer relationship management, sales.

English scientist Tim Berners-Lee found the World Wide Web in 1989<sup>115</sup>. He wrote the first web browser in 1990 while he was employed at CERN near Geneva, Switzerland. The browser was released outside CERN in 1991, first to other research institutions starting in January 1991 and then for commercial use in August 1991<sup>115</sup>. Further developments in technology enabled online banking and Pizza Hut to offer Pizzas online in 1994. The online shopping websites Amazon.com and E-Bay were started in 1995 which proved hugely successful businesses later on.

The World Wide Web (WWW), also called the Web, is an information system where documents linked to each other by hypertext can be accessed over the internet<sup>120</sup>. Documents and web resources are identified by Uniform Resource Locators (URLs). Web browser is the part of software which helps the users to access the World Wide Web.

The evolution of web took place as Web 1.0, 2.0, 3.0. Web 1.0 is the first stage of web development. In Web 1.0 there were a few creators of the content for many users. Advertisements on websites while surfing the internet were banned. Web 1.0 allows to present information on the websites.

Web 2.0 allows owners and users of contents on different websites to perform actions on the websites as well as to interact with each other. The concept of Web 2.0 does not point to the idea of technical changes but to the changes in the ways the web pages are designed and utilized for business and social purpose. Tools of Web 2.0 include social networking, blogging, tagging, web content voting, social media. It is important for the business owners to understand that in these fast paced times of life based on the use of technology and many customers not responding to conventional methods of promotions, the use of Web 2.0 and its features such as social media interaction and two way interaction between marketers and customers, is important.

Web 3.0 involves transforming the web into a database. Web 3.0 involves linking different devices or machines through web so that the information can be accessed from anywhere and the information can be linked, integrated and analyzed. Some of the key features of Web 3.0 are: artificial intelligence which allows faster comprehension by computers, 3-D graphics which is used in computer games, museum guides.

### 1.2.1 Features of web

Hence the web is based on the internet and allows linked content to show and share various resources such as text, images, graphics, videos, sounds.

From the marketing point of view, some of the important features of the web are presented as follows:

- **Ability to interact:** Through the use of web, the online business owners can interact with the customers and the customers can also interact with each other.
- **Enabling flexibility in different marketing activities:** Promotion of products and services, advertising through text, graphics, videos, online customer support are some of the activities which the web enables the business owners to perform with more flexibility.
- **Global reach:** Through web, sellers can offer their products to customers in any place in the world and customers get access to variety of products and information. The users of internet can find product information as well as gain access to offers across the world, which is an important aspect for customers as well as sellers, as from awareness, the sellers can improve their product offerings according to the needs of the target market.
- **Accessibility:** The web allows users to buy and sell products at any time in the twenty-four hours of a day.

Websites play a significant role in performing the activities of ecommerce. Ecommerce is the common reference for electronic commerce, which is the buying and selling of products via internet and transactions of money and information over internet for this purpose. Hence, in order to perform ecommerce activities, promotions, transactions and interactions are performed on websites. Ecommerce allows sellers and buyers to overcome the limitations of geographical boundaries and time zones as sellers from any country can interact with buyers of their product from another land. In ecommerce, there are several stakeholders such as business owners or sellers, retailers, wholesalers, customers, government organizations.

On the basis of the buying and selling exchange and transaction taking place between parties, the ecommerce are classified into different types. Six main types of ecommerce are as follows:

#### **(i) B2B (Business to Business)**

Business to business ecommerce is commerce or business transaction over the internet between the companies. An example of B2B ecommerce is the wholesaler giving an online order of a product to the manufacturer and the manufacturer preparing and supplying the

products to the wholesaler who makes payment for the same. Other instances of B2B ecommerce are transactions between supplier, manufacturer, wholesaler, retailer.

**(ii) B2C (Business to Consumer)**

Business to consumer ecommerce occurs when the business company does business transaction directly with the consumer. B2C is seen when a company sells products directly to the customer. For instance, customers view products on shopping websites like Amazon, Flipkart, select and order some products online, perform online payment for the products. The website receives and processes the order and delivers the products to the customers. B2C ecommerce is seen in the given example.

**(iii) C2C (Consumer to Consumer)**

When consumers do business transaction with each other and buy and sell products to each other, customer to customer transaction occurs. This can be seen when customers sell their personal belongings online such as car, motorbike, house. Examples of websites having C2C ecommerce are Quikr, eBay, OLX.

**(iv) C2B (Consumer to Business)**

Consumer to business ecommerce happens when the consumer offers product or service or skill to the business or company. For example, a freelance software developer can develop a software and display his or her skills on websites such as Fiverr. The organization may view it and purchase the software from the developer.

**(v) C2A (Consumer to Administration)**

Consumer to Administration (C2A) or consumer to government (C2G) form of ecommerce is seen when consumers interact and do transaction with the government website. An example of C2A is when the consumers pay income tax on the government website, when the consumers pay electricity bills on the government website.

**(vi) B2A**

Business to administration (B2A) or business to government (B2G) ecommerce is seen when a business or company sells products or services to government organizations. B2A ecommerce is seen when the companies bid to secure government tenders, submit applications.

On the basis of the type of product, e commerce can be classified into three main categories, physical goods, services and virtual products. The physical goods include items of various categories like bags, jewellery, cosmetics, home appliances, utensils and many more. Examples of websites for physical goods include flipkart, amazon, myntra and

others. The services include travel websites, matrimonial websites, employment websites. Travel websites are the most accessed websites by people. Examples include makemytrip, yaatra. The virtual products include online video games, movies, software, music.

### 1.3 E commerce and Online Shopping

Online shopping is a part of electronic commerce through which consumers buy products from seller through internet. The website is the key aspect connecting the organization and its online customers. The website owners can create a combination of product information, interactive website features, emotions, stimuli, cues and product, brand experience along the lines of four Ps of conventional marketing mix. Internet facilitates the marketing activities of information search, communication, sales and distribution.

Online shopping is gaining momentum in the present times and there are popular and frequently visited online shopping websites in the world and in India.

The ecommerce sales are a significant part of the worldwide retail sales. Some of the key findings in the internet retailer research report by a research website, digitalcommerce360.com<sup>112</sup>, regarding the top e tailers in the world and the share of ecommerce sales in global retail sales in the year 2017 and 2018 are presented in the image in Figure 1.1.



FIGURE 1.1 Global retail sales

From the given details, it is found that in 2018, 15.2% of the total retail sales were through ecommerce. There has been an increase of 18.0%, from US \$2.43 trillions in the year 2017 to US \$ 2.86 trillions, in the year 2018, in the global ecommerce sales. Also, the total retail sales has had an increase of 3.3% from the year 2017 to 2018. In this report, it is stated that the top ten retailers in online sales had a share of 15.1% of global ecommerce in 2018, according to 2019 Top Performers in Global Ecommerce report. According to the report, the top ten websites, by sales are given as follows, ranked by 2018 web sales.

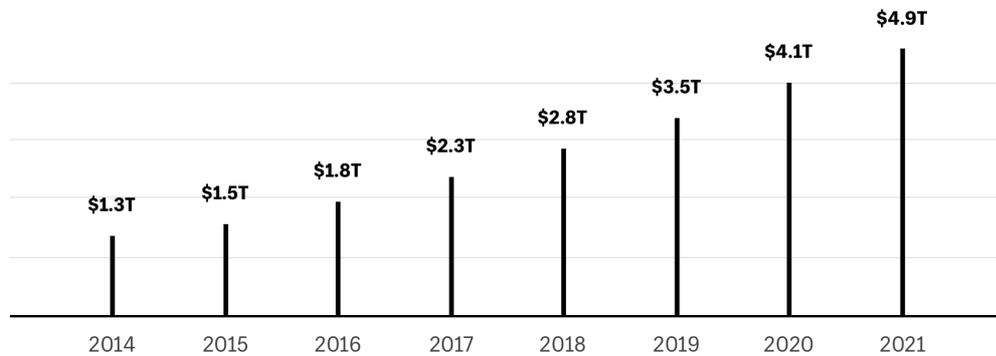
**TABLE 1.1 Global top ten websites ranked by 2018 web sales**

Rank	Retailer	Country	Merchant Type	Merchandise Category
1	Amazon.com	U.S.	Web Only	Mass Merchant
2	JD.com	China	Web Only	Mass Merchant
3	Suning Commerce Group	China	Retail Chain	Mass Merchant
4	Apple	U.S.	Consumer Brand Manufacturer	Consumer Electronics
5	Walmart	U.S.	Retail Chain	Mass Merchant
6	Dell Technologies	U.S.	Consumer Brand Manufacturer	Consumer Electronics
7	Vipshop Holdings	China	Web Only	Mass Merchant
8	Otto Group	Germany	Catalog/Call Center	Mass Merchant
9	Gome Electrical Appliances	China	Retail Chain	Mass Merchant
10	Macy's	U.S.	Retail Chain	Apparel / Accessories

Source: Internet Retailer, company reports

## Retail ecommerce sales worldwide

2014 to 2021 by trillions of USD

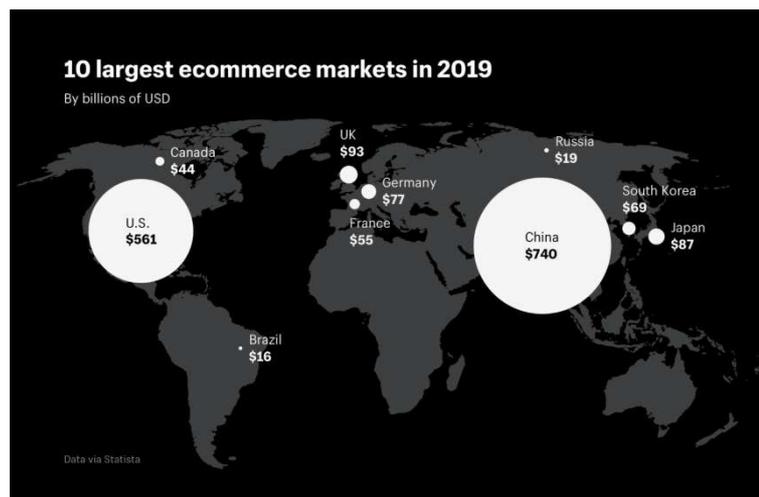


Data via eMarketer (Statista)

**FIGURE 1.2 Global retail ecommerce sales**

In the above figure, the retail ecommerce sales worldwide in trillions of US dollars (year 2014 to 2021) is presented.

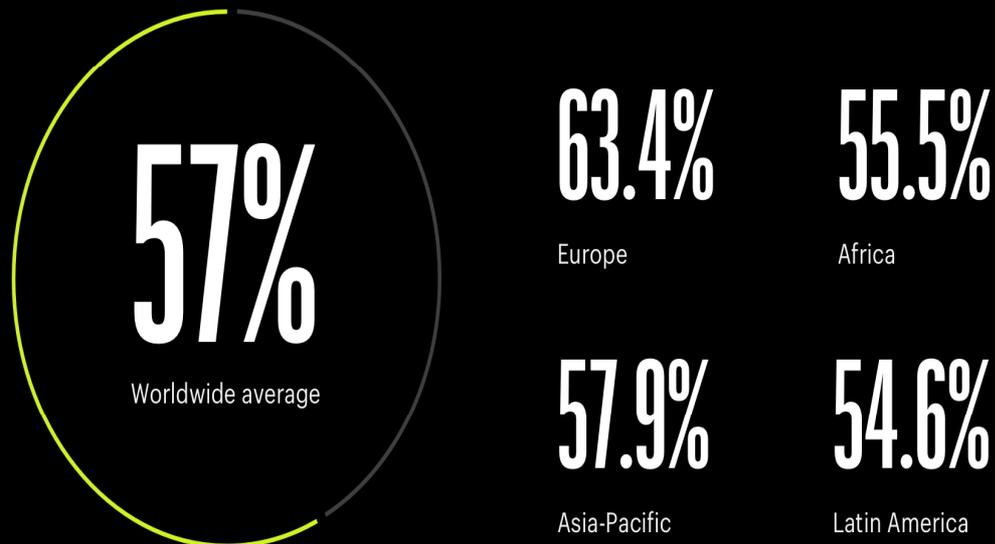
Source: Global Ecommerce Statistics and Trends to Launch Your Business Beyond Borders, by Aaron Orendorff, compiled within The Global Ecommerce Playbook, 2019<sup>117</sup>.



**FIGURE 1.3 Ten largest global ecommerce markets in 2019**

In the above figure, the 10 largest ecommerce markets in the world, by billions of US dollars, in 2019, is presented, according to Global Ecommerce report.

## Online shoppers who make purchases from overseas retailers



Data via Nielsen

**FIGURE 1.4 Online shoppers who make purchases from overseas retailers**

In the above figure, from Global Ecommerce report, it is seen that an average of 57% of online shoppers across the world purchase from overseas retailers. The highest percentage is 63.40% from Europe while the lowest is 54.60% from Latin America.

Some of the other popular online shopping websites in the world, according to a known portal, bloggersideas.com<sup>113</sup> are given below.

- Ebay.com.
- Alibaba.com.
- Target.com.
- Bestbuy.com.
- Flipkart.com.
- Groupon.com.

In the report titled, India: Ecommerce and Digital Metrics, 2018 (April 2018) by eMarketer, the following figures pertaining to ecommerce in India were found in the year 2018.:

- Retail ecommerce sales is \$32.70 billion
- Retail ecommerce growth is 31.0%
- Ecommerce as a percentage of total retail is 2.9%
- Digital shoppers percentage of population is 25.30%



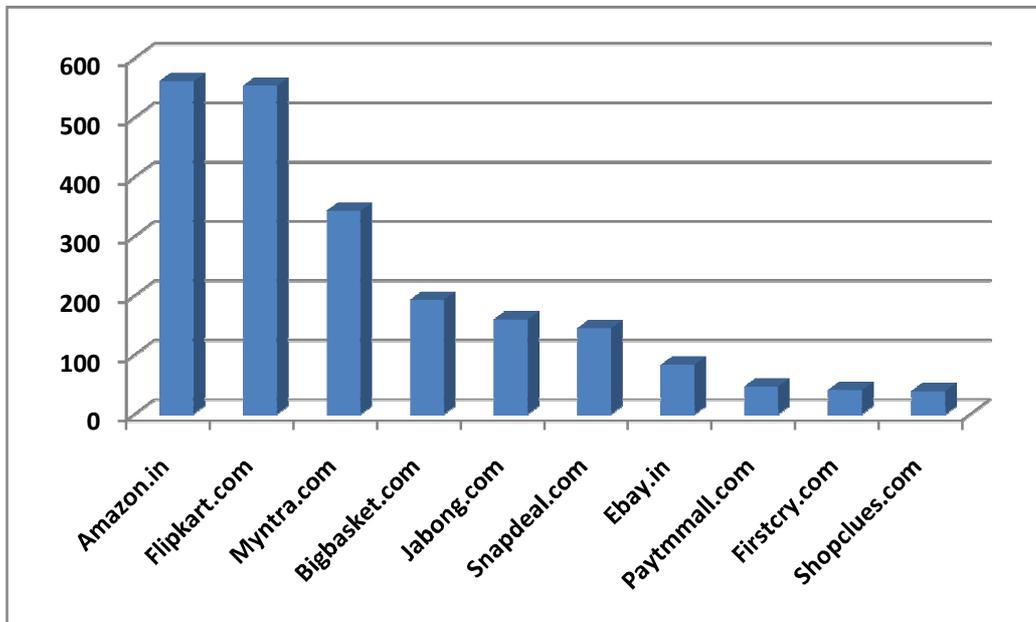
Source: onlinehindiguide.com

**FIGURE 1.5: Shopping websites in India**

According to research results found by statista.com<sup>117</sup>, the top online stores in India, ranked by ecommerce sales in 2017, are given in the following table and figure.

**TABLE 1.2 Top online stores in India ranked by annual ecommerce sales**

<b>Online Retailer</b>	<b>Annual web sales (million US dollars)</b>
Amazon.in	561.4
Flipkart.com	553.5
Myntra.com	342.7
Bigbasket.com	192.7
Jabong.com	159.7
Snapdeal.com	144.9
Ebay.in	83.2
Paytm mall.com	46.5
Firstcry.com	40.6
Shopclues.com	39.2



Source: Statista, 2017

**FIGURE 1.6 Top online stores in India ranked by annual ecommerce sales (in million US dollars)**

The top ranked online shopping websites in India, as given above, are described in brief, as follows:

➤ **Amazon**

Amazon is among the top online shopping websites. There is a wide variety of categories of products available to buy from, on Amazon website, right from books, accessories, cosmetics, fashion, gadgets, electronics, domestic appliances. Amazon is among the top retailers in many countries and also offers customization in the products, according to the local preferences in the country of its customers. In India, Flipkart is a strong competitor for Amazon. Amazon is known for its quality customer service.

➤ **Flipkart**

This is a leading shopping website in India. A wide variety of different categories of items are found on Flipkart website, right from bags, accessories to home appliances and kitchen items.

➤ **Myntra**

Myntra is a known name for fashion and apparels in India. It is a website offering a wide variety of clothes and accessories of several brands. Though Flipkart has acquired Myntra, Myntra is a separate online website.

➤ **Bigbasket**

Bigbasket is a huge online grocery store in India. It offers groceries and food products such as fruits, vegetables, beverages, food grains, branded food products, bakery items, etc.

➤ **Jabong**

Jabong is a website offering lifestyle and fashion products in India. Jabong offers products like apparel, footwear, accessories, bags and others.

➤ **Snapdeal**

Snapdeal is a shopping website selling different categories of products such as electronics, appliances, footwear, clothes. The different deals offered on this website are the key reasons for customers to buy from it. However, many customers have claimed to not have had a good experience with its customer services.

➤ **Ebay**

Ebay is a popular online auction website whose base is in USA. It enables consumer to consumer and business to consumer forms of ecommerce. On the website individuals and businesses buy and sell a variety of goods and services across the world. The usage on

website is free for buyers but sellers have to pay for listing their items and also when their items get sold after a number of free listings.

➤ **Paytm**

There are several online services available on Paytm like mobile recharge, ticket booking, hotel booking, bill payments. On paytm, discount as well as cash back is offered. This helps many users to save some extra money.

➤ **Firstcry**

Firstcry is Asia's largest online store for products for babies and kids. Products like baby food, toys, clothes, strollers and others are available on Firstcry shopping website.

➤ **Shopclues**

Shopclues is a website selling average or below average quality products at low prices. The discounts and low rates offered on the website make it popular. The quality of products is in line with its low rates. The products available are apparels for men, women, kitchen appliances, footwear etc.

There is a wide variety of products and services offered online on dedicated websites in India.

Some of such types of websites are mentioned below as follows:

(i) **Travel and tourism**

Indian and international tourists are inspired to explore rich cultural heritage of India through travel websites. There are themes based on tourist preferences – adventures, trekking, river rafting, jungle trips, etc.

(ii) **Automobiles**

There are websites for researching, buying and selling cars and two wheelers. Visitors on the websites can also view insurance details, comparison of vehicles available.

(iii) **Websites for real estate**

Websites for real estate offer information about new properties and about the ones for resale.

(iv) **Presents and gifts**

Gift items are available for purchase on websites and can be selected from categories such as toys, chocolates, flowers, woodcraft, luxury items, perfumes, etc. Surprise element can be added as one can order online for the delivery of the gift at the address of the loved one.

(v) **Employment**

There are portals for the people seeking jobs in different fields like education, corporate,

secretarial, etc. Employers of jobs of different fields can also access these portals to find suitable candidates for the jobs.

**(vi) Matrimony**

On matrimony websites and portals, people can search for suitable matches on the basis of place of residence, caste, profession, religion and other select criteria.

**(vii) Share markets and stocks**

Interested people can explore, buy and sell stocks and shares through websites. Market research, analysis, company details, information on mutual funds, online buying and selling of stocks and shares can be performed through websites.

The Indian e commerce is expected to reach US \$ 200 billion by 2026 from US\$ 38.5 billion as of 2017 (ibef.org, June 2019<sup>116</sup>). Online shopping is a part of e marketing or internet marketing, which is advertising and promoting the product through the use of internet. Web is the basis of e marketing and online shopping as the online business owners market and sell their products and services through websites and portals. Web as a tool for ecommerce and e marketing offers many opportunities for markets and businesses to exist and grow, however it requires considering certain points with respect to designing, creating and maintaining one's website for business. Interaction of online customers with online marketers regarding the product, through web chats, social networking websites is fast gaining importance in the present time. In Kotler's leading marketing management text, it is stated that "transaction marketing is part of a larger idea called relationship marketing." This explains marketing as a relation built from interactions with the customer. In the present time, having customer details in a database and ability of internet and technology to customize on a large scale and send emails in bulk, has lead to cost effective relationship marketing. Brand experiences are created online by business owners for customers to explore. In the internet marketing, the marketers as well as the customers create, share and experience the product, brand, opinions. This becomes possible faster due to the online communities and interaction among the product customers and sellers. For an organization, internet communication can suitably be integrated with marketing communication mix. In e-marketing, the line between operations of the organization and marketing communication seem to blur. There is emphasis on the value of relations in marketing. In e marketing, relations of the brand or the product selling organization can develop from the customer's pre-purchase stages of information seeking and product promotion, to purchase stage and post purchase stage of after sales service and customer support. The care being taken by

online companies to maintain customer relations and product satisfaction is bringing about a rise in the number of online shoppers. However, there are many people hesitant to shop online due to reasons like perceived financial and personal risk while shopping online, influence of social group, limitations in the availability of resources such as internet, credit and debit cards, slow speed of internet, lack of awareness or practice of online shopping. People also do not feel very inclined towards shopping online when they treat shopping in actual stores, shops and malls as a social activity and seek enjoyment in shopping at brick-and-mortar stores with their friends and family members.

#### **1.4 Types of Web Visitors**

Internet users are classified as five kinds of web visitors, each with different needs and wants by Lewis and Lewis (1997<sup>13</sup>). This classification is given as follows:

**(i) Directed Information seekers**

This group of web visitors look for and access timely information which is relevant to their needs.

**(ii) Undirected Information seekers**

This category of web visitors likes browsing randomly to view or find anything of interest.

**(iii) Bargain hunters**

This category of web visitors prefer finding good bargains such as free samples or gifts or prizes along with their online purchases.

**(iii) Entertainment seekers**

This group of web visitors like features of entertainment and interaction in a website. They are attracted to features such as animation, online games, sound and video clips.

**(iv) Online buyers**

This group of web visitors accesses websites with a definite purpose to buy a product or products.

There are also different categories of online shoppers such as those who are new to the internet and those who are brand lovers. **New to the internet** category of consumers are individuals who are beginners in the world of online shopping and could be cautious and wary of online shopping or adventurous and thrilled about trying online shopping and learning it fast.

**Brand lovers** are the shoppers who are enthusiasts of certain brands and will explore online shopping to know new product offerings of their preferred and favourite brands and

prefer purchasing only the products of the brand of their choice. They can be flamboyant and brand loyalists and be members of the online fan communities of their favourite brands.

### **Innovative consumers**

Innovativeness of a consumer is an important aspect of study of types of consumers and their behaviors. A consumer's innovativeness refers to the personality characteristic of a consumer about how sooner or later he or she adopts a new product or technology in his or her life. It also implies how a consumer responds towards adopting a new product or technology in his or her life. Two types of innovativeness of a consumer are known. One is general innovativeness which impacts how a person responds and reacts to new products and experiences associated with it. The other type of innovativeness is domain specific. It is a consumer's innovativeness specific for a product category and it shows a consumer's inclination to know about and adopt innovations in a particular domain or product category. This is an important concept to know for online marketers in order to understand their target market according to the product they are offering for sale. On the basis of the product offering, the online marketers can find out through online communities and forums, web chats and social media about the more innovative existing and potential consumers and suitably promote their new product offerings among them to encourage the use of their products. Online marketers can then also get feedback regarding their products from their innovative consumers.

A consumer's search behavior on internet has two parts: One involves searching for relevant information through website or search engine. The other search is intra site which takes place within a site to find information about particular brand or product. Thus, a consumer's website search can comprise of search which is across many sites as well as within a website. This characteristic is significant as online marketers can position and promote their product offerings and relevant information effectively according to the type of product, demand for it and web search done by customers for it.

Online shopping behavior of consumers is based on their need to reduce their transaction costs with minimum complexity. Online shopping behavior is also based on family and social influences, online shopping is seen as innovation and its adoption is affected by characteristics and attitude of consumer as well as the influence of marketing media and known opinions.

## **1.5 Online Customer's Buying Behavior at Different Purchase Stages**

There are three stages in buying process – pre-purchase, purchase and post-purchase. A customer's preference of accessing offline and online channels during each of the buying stages, depends on the following factors:

- (i) The customer's internet experience and the feeling of comfort with it.
- (ii) Product category – the more complex the product, the more the customers shift between offline and online channels.

Hence, companies can consider this while preparing and implementing marketing strategies. The buying stages and the online and offline actions taken by the consumers during each stage, is presented in the following figure. The stages are explained as follows:

### **1. Pre-purchase stage**

The pre-purchase stage of a customer's buying behavior starts when the need to buy a product to fulfill specific purpose, arises. In order to purchase the product, the customer starts by searching for information relevant to the product. Depending upon the type of product and the customer's own perception, the customer may access online as well as offline channels and resources to collect information and know more about the product, its categories, available varieties, market price, contact details of sellers, available deals.

Through internet, one can access a wide variety of information about a product. The product information available on websites can be accessed quickly and conveniently through customized search options which provide filtered search results according to criteria and needs entered on the website by the customer.

On the internet, the customer can also find information and answers to personal doubts or queries regarding the product in interactive way as the customer can interact with other users of the same product, experts in the field related to the product, people with similar interests pertaining to the product category or brand. On the internet, there are facts and figures available from genuinely stated sources, presenting information about the product. Also, on the internet, there are reviews and testimonial videos posted by users of a product, which adds to genuineness of the presented information about a product. These aspects of internet can help greatly in reducing the fear and uncertainty about a new product. The internet also allows convenient comparison of information which enables users to evaluate options among many brands or categories of products as well as sellers.

For the customers having online experience, the online product search and comparison of the pre-purchase stage is easier and faster and more economic as through internet, they can get most or all of their information about products, on their device, even if they are accessing their device only from one place, such as their home or workplace or travel. For those not having enough internet experience, the idea of online search could make them feel uncertain which can also lead them to prefer search for product information through offline channels. Through an increase in the awareness among people about the benefits and genuine information offered by online channels, the customers can be encouraged to turn to online channels along with offline channels to obtain the product information they are seeking.

## **2. Purchase stage**

In the initial phase of this purchase stage, customers form a consideration set of products to choose from, then they move forward in the process of decision making and their focus moves from gathering information about products to the evaluation of alternatives of the alternatives they have so far considered. In considering for the purchase of moderate to high involvement products, the customers may tend to seek advice or help from friends or family or known sales personnel of the product or a professional related to the field of the product. Internet may not be a much preferred channel in this stage because of the perceived finance, security risks, other security related concerns, possibility of error or fraud in product delivery. Hence, in such scenario, for the evaluation and selection of suitable product and brand for purchase, the customer may take the services of sales personnel of a brick-and-mortar showroom or store. In these circumstances, if the customer is having adequate experience of online purchase or if the customer is aware that there is a highly reputed website on which the product is available for sales, the customer may prefer to purchase product from the website.

The customers not feeling certain or satisfied about the internet experience may prefer purchasing offline for medium to high involvement products due to the perceived risks of online shopping and the feeling of uncertainty.

Hence, in the purchase stage, the customer evaluates the available options for purchasing product and on the basis of own opinion, experience, online and offline channels and sources and selects the most suitable option.

In order to purchase the product, the customer then contacts the available seller or marketer or website and enquires about placing an order for the select product. The customer then

places an order for purchasing the selected product from the seller. If the customer is buying the product from website, the customer may place an online order on the website, then make required payment through website or may opt for payment in cash upon receiving the purchased product. If the customer is buying the product through offline store or showroom, the customer may visit the place, place his or her order for purchase in the store or showroom and may either give full payment to the seller or according to the product type and the customer's relation with the seller, the customer may make part of the payment before and the remaining payment after, the delivery of the product to the customer.

On the basis of the product purchase order, the customer will either receive the product directly at the showroom or store or will receive the product upon the product delivery at the address given by the customer to the seller at the showroom or store or the address given by customer on the website. The customer thus actually receives the product at the end of the purchase stage.

### **3. Post-purchase stage**

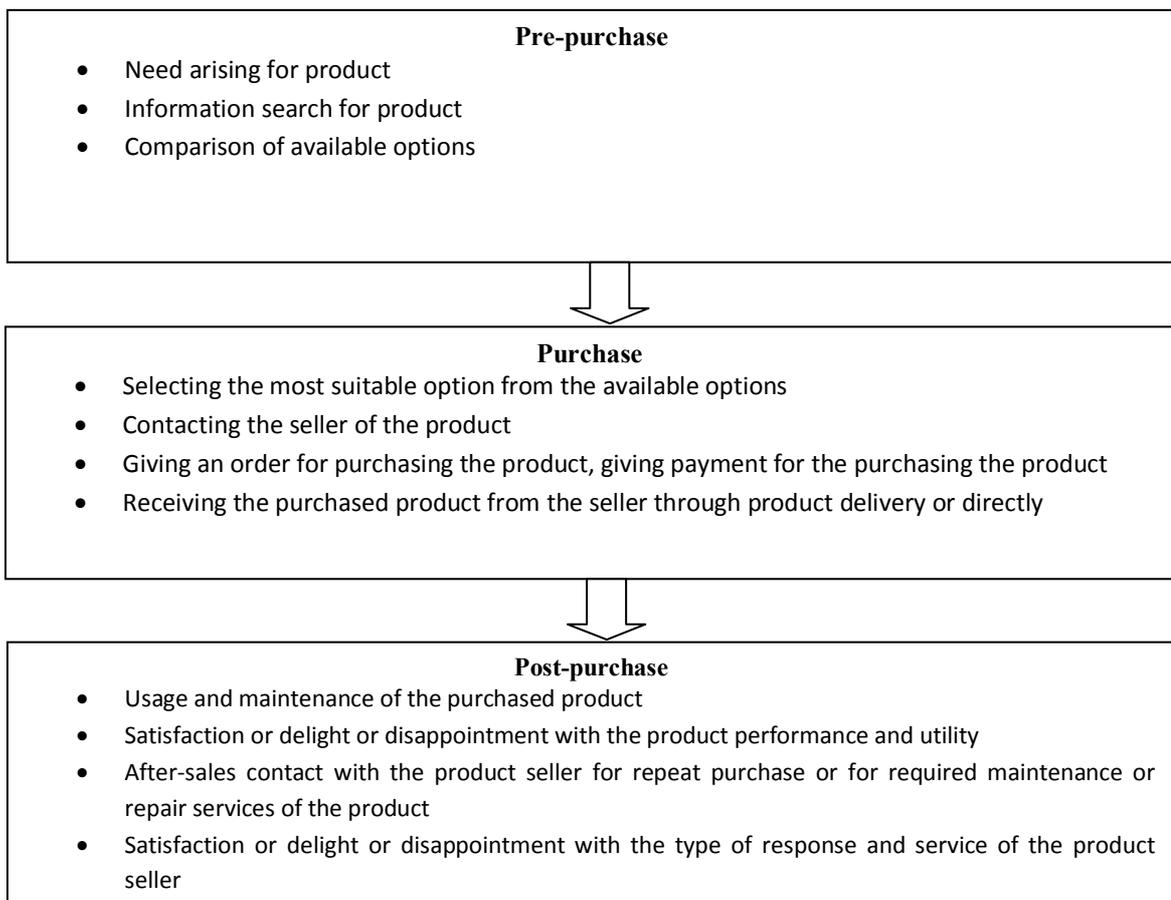
Prior to this stage, the purchase of the product happens, therefore in this stage, the customers may not feel as much anxious while referring to online or offline channel. For this stage of post-purchase, the customers may select the channel on the basis of their convenience. The customers may tend to save their time and may prefer to utilize the channel which they are most comfortable with.

The customer with positive experience of internet may prefer online channel for post purchase activities while those with relatively less favourable experience of internet may prefer offline channel for post purchase activities. In the post purchase stage, the customer has started with the usage of the purchased product. On the basis of the product performance and the perception and past experience of the customer, the customer may feel satisfied or delighted or disappointed with the product. Accordingly, the customer may contact the seller for repeat purchase or for repair or maintenance of the purchased product. In the case of any error in the product delivery such as delivery of different or faulty product or damage of product in transport during delivery, the customer may contact the seller for arrangement of delivery of the right product to the customer. Due to prior communication between the customer and seller in the previous stage, the customer may not feel as much uncertainty in this stage and the communication with the seller may be easier. If the customer is contemplating to contact the product seller online, the layout of

the website and the company policy and contact details of the product seller displayed online play an important part in the customer's decision to contact the seller by using the website.

When the customer contacts the product seller and gives feedback about the product and its performance to the seller, it is important for the seller to be attentive to the feedback of the customer. This will not only help the seller to improve his or her product, sales and customer services but also give a feeling of importance to the customer.

On the basis of the response and after sales services offered by the seller, the customer may feel satisfaction or delight or disappointment with the conduct and services of the seller. Hence it is important for the seller to respond as promptly and effectively as possible to make the customer feel important and have a positive impression about the seller, the website or the organization or the product, due to which the customer may spread a positive word about it. This can help the product seller to maintain a good long term relation with the customer.



Source: self

**FIGURE 1.7 Purchase stages of a customer**

## 1.6 Online Electronic Payment Systems

There are different ways through which a customer can make an online payment for the product purchased via a website, on the basis of options provided for the customers, on various websites.

The online payment options are explained as follows:

- **Card Payment system**

Credit cards and debit cards issued by banks for customers are popular since some years. Debit card is issued by the bank to the customer allowing the customer to buy products whose payment is made from the bank account linked to the card of the customer.

Credit card is issued by the bank enabling the card holder to buy products on credit. The bank makes payment on the card holder's behalf and the card holder has to pay the credit card bill within thirty days to the bank.

- **Internet Banking**

Internet banking or online banking is a digital based system which allows customers of a bank or a financial organization to carry out financial transactions through the website of the bank or financial organization.

- **E-cash (Electronic cash)**

E-cash is an electronic cash currency. It is a system to electronically transfer money from buyer's account to seller's bank. It is in circulation through a series of encrypted numerical sequence number. The sequences are used to show the value of all sizes. Electronic cash can be kept, allowed and transferred to smaller transactions. It is also called digital cash or digital money.

E-cash is flexible, as it can be stored online and withdrawn offline. E-cash is portable as it can be transferred to any place having an internet connection. E-cash allows anonymity to the person having its possession.

- **E-purse or e-wallet**

There are two main categories of e-wallets or e-purses available<sup>121</sup>. These are client-side and server-side models. Client-side e-wallets are the ones maintained by the user or the customer. The user or customer downloads and installs a program and enters all the payment and product delivery related information and all of this gets stored on the user's personal device (computer or laptop). Thereafter, whenever the user checks out

at a compatible website, the e-wallet software completes filling most of the required information and the user doesn't have to do it.

In server-side e-wallets, all the wallet data is stored in the e-wallet provider company's secure computers, instead of the customer's computer. Whenever the customer shops from a website supporting the particular brand e-wallet, he or she is not required to fill in any other details except one's email address and password. The purchase order gets completed fast directly with the help of the details filled in by the e-wallet. The website or online store receives the amount from the credit card account given by the customer. The most important benefit of using e-wallet is the customer does not have to reveal his or her credit card number and pin number.

### **1.7 Perception of Customers towards Online Shopping**

Perception towards online shopping is the reception of external stimuli of online shopping and its interpretation and consequent opinion of the customer towards online shopping. Perception towards online shopping can be negative or positive. Positive perceptions include the perceived benefits while perceived risks constitute the negative perceptions. In terms of possible evaluation of product on basis of effort and risk, convenience product are considered as having lowest of risk and effort, while speciality products are seen as having highest risk and efforts as the cost of time and money spent is the highest and very carefully considered. Among the perceived benefits, there are utilitarian and hedonic benefits. Utilitarian benefits involve the timely and efficient purchase and use of products to achieve certain objectives while hedonic benefits include the enjoyment and entertainment experienced by the customer from shopping. Perceived utilitarian benefits about online shopping imply that the customers feel that the benefits received from online shopping are useful and efficient. Perceived hedonic benefits from shopping online indicate the benefits that add to the enjoyment aspect of the individual's shopping experience. Perceived benefits indicate the customer perception of the positive outcome that can happen from performing online shopping. Some of the known perceived benefits of online shopping by customers include convenience, time saving, discounts, policy of product return and cash refund, comparative product information, accessibility to worldwide variety. These days many families can be found to be present in which all the family members are employed. In such scenario, people may prefer to spend their time at home in leisure, hobbies or self development activities or completing the remainder of their

housework. Hence, people may perceive benefits such as time saving and convenience through their shopping online. For purchasing any category of product – from general grocery product to speciality items, they can purchase online from their home or office, or in travel, the customers do not have to go up to the store or shop to buy. The customers can buy product from anywhere and at anytime.

Another important benefit perceived is the availability of many types of discounts and deals on different websites. The customers with modest income families too browse with interest to find deals and discounts to buy products at low prices and through big sale offers, while those of higher income categories also look for discount on speciality or premium products or even services like hotel and flight bookings. Not all shops and stores in the country allow return of products but on established websites, there are policies that allow the customer to return the purchased product and get a refund of the money paid. This is a benefit perceived by customers who are interested in purchasing a product online but also feeling uncertain about quality of the actual product which will be delivered to them.

One of the perceived benefits which is uniquely offered by online shopping is the customers can view a wide variety of products from across the world, interact with sellers and order and purchase the product, through the means of internet. During online shopping or even otherwise, the customers can access comparative pricing and other details of a product through internet.

There are some negative perceptions or uncertainties and fears perceived by customers about online shopping. These can be referred to as the customer's perceived risks of online shopping. The risks perceived by online shoppers include time risk, financial risk, risk of breach of online security, functional risk, social risk. These perceived risks are explained as follows:

**(i) Time risk**

The customers' perceived time risk regarding online shopping is the fear or uncertainty they feel that searching for a product online and buying it could turn out to be a waste of their time. This perception of time risk happens in people as they fear that the time they spend online in searching for the details of a product, contacting a product seller or dealer, filling up the details online for order for purchase of the product, performing online payment of the product and after waiting for required time receiving the product delivery,

should not turn out to be a waste and the purchased product should prove to be worth the time spent for purchasing it.

**(ii) Financial risk**

The financial risk of online shopping perceived by customers is the feeling of uncertainty and fear that the money they spend in purchasing a product online should not turn out to be a waste. This also means the fear of customers that the payment the customers make online for purchasing a product should not result in the delivery of a different or faulty product as this could be a loss of their paid money, if the seller refuses to replace the product. The customers' perceived financial risk also implies the fear in the customers that their financial transaction should not be with a fraudulent website, resulting into a loss of the money amount paid online.

**(ii) Risk of breach of online security**

The customers' perceived risk of online security while shopping online is their feeling uncertain if the website is secure enough. This implies the feeling of fear in customers that during their online shopping activity, the details of their online communication and financial transactions with the product seller or website can be viewed and accessed by unauthorized party or hackers. The customers fear that their details shared online such as their personal details like name, contact details, date of birth, product preferences and others, and financial details like credit or debit card number, pin number, one time password, online bank account password could be accessed by third party, putting their identity and money at risk.

**(iii) Functional risk**

Functional risk perceived by customers implies that the feeling of uncertainty in the minds of the customers that the product purchased online will not function as was advertised by the seller and as it was expected to.

**(iv) Social risk**

Social risk is the fear in a customer that the online purchase of a product and its subsequent usage may cause the customer to lose his or her status in society.

An individual's perception of benefits and risks of online shopping can be impacted by different internal as well as external factors of that individual. The internal factors are the characteristic factors of the person. These internal factors can be a natural attribute of the person such as an open, innovative attitude, an inclination towards the use of technology, as well as the factors developed with practice and experience over time such as comfort

and ease with using internet, online shopping experience, trust in internet shopping, an awareness about online shopping and its offers.

### **1.7.1 Internal factors**

The internal factors which can have an impact on a customer's perception of benefits and risks of online shopping are discussed as below:

#### **1. Demographic factors**

The various demographic factors such as age, education level, income, occupation and others can have an impact on the customer's perception about online shopping. The customers of the age group of more than sixty years may least prefer internet shopping for any of their purchases due to their habit of shopping from brick-and-mortar store. This group of customers may have perception of benefit of being able to buy from home but also the perception of risk of having to understand internet usage and filling up details online and doing payment online. While the customers from age group of thirty to forty five years may have perception of benefits of online shopping such as discounts and sales, time saving, access to variety of brands and perception of risks such as online security risk. In different or even same age group, the perceptions may vary according to occupation and income. Customers who are students may perceive benefits of online shopping of discounts and deals for brands while perceiving risks such as financial risk of losing their pocket money to fraud websites. Customers who are professionals by occupation and have to fulfill work assignment orders within stipulated time period may perceive benefits of convenience of online shopping while perceiving time risk of late delivery of product. The customers belonging to high income group may perceive the benefit of having access to buying branded foreign products through online shopping while also perceiving the risk of online security and payment to fraudulent website. Hence, as needs of customers with different demographic characteristics are different, the benefits and risks they perceive with respect to online shopping may vary. This can be important for online marketers as they can understand the market and accordingly take steps to reduce the risk perceptions and enhance the perception of benefits of shopping from their websites, for the target market.

#### **2. Online shopping experience**

The customers having a positive experience of online shopping might be more likely to have perception of its benefits more than perceiving the risks of online shopping. The customers having some awareness and practice of having purchased one or more products

online may perceive benefits of online shopping such as time saving and convenient and perceive risk such as time risk or delay in product delivery. On the other hand, the customers having a negative experience of online shopping may perceive benefits of online shopping such as access to discounts and reputed foreign brands but may have a higher perception of the risk which lead to their previous negative experience of online shopping.

### **3. Trust in online shopping**

The customers having trust in the ways of interactions and transactions of online market places may have a perception of benefits more than perception of risks of online shopping. Trust in online shopping can exist because of different reasons. It can be due to inherent trust of the customer in online shopping, due to positive experience of online shopping. Also, the trust in a known brand of product or website or company can translate into trust for online shopping from its website.

### **4. Open and innovative attitude**

Customers having more willingness and receptiveness to know more about new products or services and to try and adopt its usage are innovative customers and open to try new product offerings. Such customers may carefully understand the perceived benefits as well as risks of online shopping and on perceiving benefits worth or more the perceived risks, they may take their decision to shop online.

### **5. Comfort and ease of using internet**

If a customer is comfortable with operating the internet and finds it fast and easy to operate, he or she may perceive the benefits of internet such as time saving and convenient more than perceiving the risks such as online security. This can also be as the customer due to practice and habit of checking for signs of secure website, will not perceive online security to be as much of a risk.

### **6. Inclination for use of technology based products and services**

Some customers tend to have an interest in finding about advances and new technologies and updating their mobile phones, laptops and devices accordingly. They may evaluate perceived benefits and if they find it more than perceived risks, they may purchase or adopt the technology. For instance, the customers using e- wallets for online shopping found the perceived benefit of online safety and freedom from having to fill up customer and payment details better than the perceived risk of using credit or debit card and providing one's card pin number online.

## **7. Awareness about online shopping**

Some customers tend to be more attentive than some others towards benefits derived from shopping online. This could be because of the specific need or interest of the customer such as heavy discounts and savings from sale. On having an increased awareness about online shopping and offers available, the customer may perceive benefits and risks of online shopping accordingly and then take decision whether to shop online or not.

### **1.7.2 External factors**

There are several external factors which can impact a customer's perception of benefit and risk of online shopping. These factors are explained as follows:

#### **1. Internet access**

A sound internet connection or an access to wi-fi is an important factor in customers wanting to explore internet shopping and perceiving online shopping as risky or beneficial. When customers shop online through an internet system which has slow speed or interruptions, the customers may feel frustrated with slow loading of web pages and content and perceive online shopping as a time consuming and dull and expensive activity. Hence, for the customers to perceive internet shopping as time saving, convenient and with discount offers, the customers need to have an access to uninterrupted internet connectivity and a reasonable speed of internet is important for the customers to have available to them to enable them to explore online shopping.

#### **2. Availability of resources**

Availability of resources such as uninterrupted power supply, internet connectivity, network range, availability of any suitable devices such as mobile phone or laptop or desktop play an important role in the perception of individuals regarding the risks and benefits of online shopping. Unavailability of any of the above resources may lead to customers unable to explore internet shopping.

#### **3. Social circle**

The social circle of a person can have a significant impact on his or her perception of risks or benefits of online shopping. The social circle of a person includes one's acquaintances, neighbours, social and religious groups a person belongs to, this can also include the online social community of which a person could be a member.

#### **4. Influence of family, friends, peers**

The opinions and preferences of family members, friends, peer groups and colleagues of a person can have a significant impact on his or her perception of risks and benefits of online shopping. When a person realizes the need to purchase a product, he or she contemplates about options available regarding where and how to buy the product. On the basis of product type and the complexity of purchasing it, a customer may approach his or her family members, friends and peer group for their opinions about the product and the means of purchasing it suitably. This might also include the decision whether to purchase the product online or offline. In the customer's family, the opinions and preferences of family members of different or similar ages may have an impact in the choice of purchase which may include the choice about whether to purchase a product online or from a brick-and-mortar store. Every member of the family will have his or her own perception about the benefits and risks of online shopping and this can have an impact on the customer's choice to purchase online or offline. A customer might also rely on opinions of friends and peer group as they may be aware of similar product offerings, deals and suitable online or offline sources for buying the product. Hence, the benefits and risks of online shopping perceived by the friends and colleagues of a customer can have an impact on the perception of the customer which may in turn affect the purchase preference of the customer as whether to buy a product online or offline.

#### **5. Influence of advertisement, media, news**

A customer receives a lot of information from sources such as news and advertisements in television, newspapers, internet about product offerings, available deals, discounts, claims made by product manufacturers and marketers as well as news of reported incidents of received benefit or loss due to fraud, in online as well as offline shopping done by people. This can affect the way a customer perceives benefits and risks of online shopping.

#### **6. Website**

The type of website and its characteristics include the design and presentation of product and related information on the website, the ease with which product details and purchase, contact and other options can be located and accessed by visitors on the website. While visiting a website, the customer may consider these characteristics of the website as well as its loading time and the response of the support staff in case of query or contact by the customer. Therefore, a customer's experience of visiting and accessing a website can have

an impact on his or her perception of benefits and risks associated with shopping from the website.

### **7. Product type and characteristics**

A customer may perceive benefits and risks of online shopping as well as choosing whether to buy a product online or offline on the basis of the product to be purchased. If a product is a high involvement product, the customer may be more cautious in considering his or her perceptions of risks and benefits of online shopping as well as availability of online and offline options while for a low involvement product, the customer may consider online or offline options on the basis of convenience or pricing.

Thus the above internal and external factors can have an impact on the customer's perception of the benefits and risks of online shopping.

On the basis of a customer's perceived benefits and risks of online shopping, the customer might have expectations of online shopping. After shopping online, if the expectations of customers are not met, the customers may feel dissatisfaction or disappointment and may or may not repeat an online purchase while if the expectations of online shoppers are met, the shoppers may feel satisfied or delighted and may spread a positive word of mouth for the online shopping and might shop online again.

**CHAPTER 2**  
**LITERATURE REVIEW**

# Chapter 2

## Literature Review

### 2.1 Introduction

In the new era of marketing and business, internet medium allows the entire sales cycle to be conducted on one medium instantly. This new trend is called online shopping. In the online shopping technique, the consumers searches the information about products / services on internet and can purchase this online by click of the mouse.

This online shopping is synonym to e-marketing or electronic marketing, internet marketing, e-business marketing. Here the marketing interactions are carried out using digital media online. All web based purchasing interactions are a form of digital networked interactions. These digital interactions comprises of what has been called marketing in “computer mediated environments”.

In this chapter, the current status of online shopping has been reviewed right from its origin. Many research reviews associated with the evolution of online shopping, in the context of e-commerce, are given here such as-

- E-commerce and internet ,
- Global e-commerce business ,
- Indian e-commerce industry ,
- Online shopping across countries ,
- Reasons for increase in online shopping trend,
- Comparison of online with offline shopping factors, motivating and restricting online shoppers,
- Study of different variables affecting online shopping.
- Customers’ expectations and experiences in online shopping.

Also this chapter is useful in building the research base for the present study.

### 2.2 E-Commerce

Electronic Commerce or e-commerce is trading through the internet using computer networks. It has been around the globe since mid 90s<sup>118</sup>. An electronic transaction can be

between enterprises, households, individuals, government, other public or private organizations. In these electronic transactions or online shopping by customers orders are made over the web, extranet or electronic data interchange. Internet has revolutionized the speed and efficiency of business transactions. Business deals which used to take months to finalize, are now concluded within hours. The internet has also helped to streamline the business processes of the organizations.

### **2.2.1 The role of internet in e-commerce**

The first version of internet developed was known as ARPANET in 1960s<sup>118</sup>. Its network was sponsored by US government. There after the hardware and the network of internet started to grow and the number of users grew dramatically. Internet and web are amongst the most profound creations of the human being when we consider their impact on our lives today. The computer users can locate and view multi-media based documents i.e. documents with text, graphics, animations, audios, videos etc on almost any subject today on web. The internet provides both computing and communication technologies. It makes our work easier and allows information access instantly and conveniently worldwide.

### **2.2.2 History of e-commerce**

The e-commerce and its technology have been around for forty years. The term e-commerce came into existence in 1970s<sup>118</sup> and was used to describe the process of conducting business transaction electronically using technology from the Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). These technologies which first appeared in late 1970s, were used for the exchange of information and carrying out the electronic transaction between businesses, typically in the form of electronic purchase orders and invoices. Throughout the 1980s, in the growth of e-commerce, and next step was proliferation of the credit cards, ATM machines and telephone banking. Thereafter in the early 1990s, e-commerce started including things such as Enterprise Resource Planning (ERP), data warehousing and data mining. The e-commerce really began to gather momentum by 1994 with the introduction of security protocols and high speed internet connections such as DSL, having much faster connection speeds and faster online transaction ability. Between 1998 and 2000, in response to experts' opinions about expected explosive growth in e-commerce, a substantial number of businesses in Western Europe and United States started building their rudimentary e-commerce websites. As a result, the very next year the business to business transactions online became one of the largest forms of e-commerce with over \$700 billion in sales.

### 2.2.3 Global e-commerce business view

A review about international development of e-commerce in world is given by a report from Global E-commerce, Statista. (2019<sup>117</sup>)

The e-commerce started in America around 1982 and till 1990s it was largely limited to United States (US), followed by UK. However with advent of globalization and concept of borderless state gaining ground, the e-commerce share of US has declined over the years in the total global sale. It was reported in this review that in coming years the stake of US was expected to be 16.9% which was lower by 25% from that in 2015. Also the North America and Europe were showing the same trend.

Now, it is projected by research analysts that by 2023, China will be one stand out leader and e-commerce sales in Asia Pacific (APAC) are projected to be greater than the rest of the world combined. The reasons are-

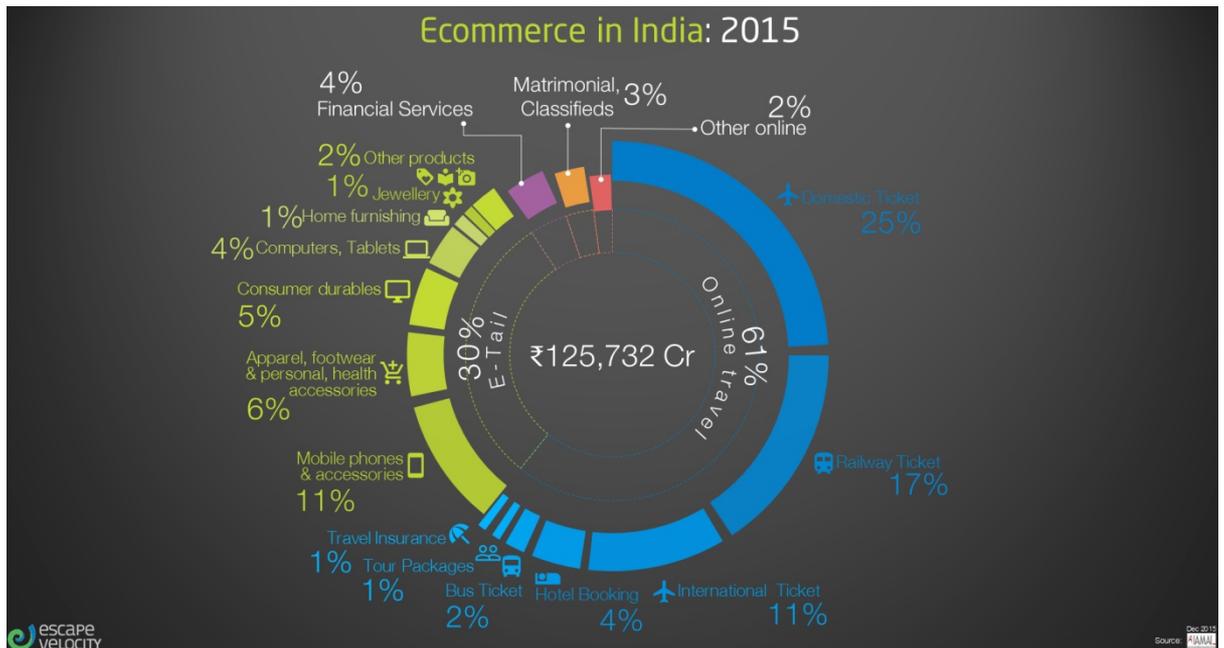
- (1) Fast urbanization and technological advancements.
- (2) More than 85% of the new middle class residing in APAC.
- (3) A host of government and private led business initiatives in China on B2B front as well as manufacturing in APAC and China, have undergone revolution.

Statista's analysis predicts about B2B e-commerce taking over B2C e-commerce business by nearly four times (278.6%) It is because B2B market places (e.g. Amazon Business, eWorld Trade, Alibaba, Joor etc.) operate like their B2C counter parts. Also they provide readymade connections between buyers and sellers.

E-commerce regional markets rank as follows:

1. Asia..... \$ 831.7 billion
2. North America..... \$ 552.6 billion
3. Europe..... \$ 346.5 billion
4. Australia..... \$ 18.6 billion
5. Africa and the Middle East... \$ 18.6 billion
6. South America..... \$ 17.7 billion

## 2.2.4 E-commerce scenario in India



Source : IAMAI IMRB Icube 2015

**FIGURE 2.1: The proportion of e-commerce sales contributed by various categories in India**

From the analysis results of data from IAMAI IMRB Icube 2015 (2016<sup>119</sup>), the total e-commerce transactions in India was about Rs. 125,732 crore in 2015 and grew at 28% CAGR between 2012-15. It showed the proportion of e-commerce sales contributed by various categories in India. The online travel drives a bulk of e-commerce revenue in India, that is 61% of total e-commerce revenue of Rs 1.25 lakh crore. Domestic air tickets form the largest chunk of this, followed by railway tickets and international air tickets. It is because of boom in tourism industry based on e-commerce. Tourists get information about destinations, facilities, availabilities, prices, geography and climate etc., also online hotel booking, flight booking, car booking from online travel industries like MakeMy Trip.com, Yatra.com, Travel.indiatimes.com. During the time period of three years from '12 to '15, online travel grew at CAGR of 30% but rail tickets( at 17%) CAGR and domestic ticketing (at 22% CAGR) are slowing down the growth.

In e-commerce the purchase of different types of commodities / products online, also termed as e-tailing is only 30% of the total value of e-commerce transactions. E-tailing

grew at CAGR of 80% during the above stated period. The three categories within “e-tailing” that are driving the growth are- mobile phones (126% CAGR), consumer durables (135% CAGR) and home furnishing (94% CAGR).

### **2.2.5 Indian retailers and e - commerce**

In Asia, there is a pattern of both traditional retailers and digital marketing growing together<sup>118</sup>. So the issue of closure of traditional retailers due to arrival of online shopping is not so prominent. At present, 70% of total e-commerce market comprises of e-travel. E-Tailing which comprises of online retail and online market places, has become the fastest growing segment in the larger market, having grown at a CAGR of around 56% over 2009-2014. The size of e tail market was estimated as 6 billion USD in 2015. Books, apparel, accessories and electronics are the largest selling products through e tailing, comprising around 80% of the product distribution. A strong customer base is developed by increasing use of smart phones, tablets and internet broadband and 3G. In India e tail companies with their innovative business models have led to a successful e tail market.

As compared with 279 million internet users in US , India’s internet user number is just lower by 36 million, but higher than that of Japan, Brazil and Russia. In relation to its population only 19% Indians use the internet. This indicates as internet penetration increases in India, the e-commerce industry will also grow tremendously. The size of Indian e-commerce sector is estimated \$ 10 billion and is expected to grow four times by 2018, according to Nomura study. India’s e-commerce market at present is estimated to be one of the fastest growing in the Asia Pacific region.

The factors for this e-commerce growth in India are, a young demography supported by rising income levels, internet penetration and smart phone sales. Besides this, at an individual level , convenience and greater access to a wide range of products (also in small towns beyond the major cities), supported by more use of cash-on-delivery payment model, which have been the keys of e-commerce adoption.

In world, India has the second largest internet base, with the number of internet users more than 450 million at present(Executive Summary by PWC for NASSCOM, 2018<sup>1</sup>). From this about 70 million people have more than 3 to 4 years of online experience, which makes them comfortable in using e-commerce. As the internet users are expected to almost double to 60% by 2022, the e-commerce industry is expected to grow into a 100 billion USD market by 2022.

By the year 2022, the overall market growth is expected to be around 25% per annum. Thus the total number of e-commerce customers will soon hit 175 – 200 million. Now onwards in the next 100 million users, the average age of shoppers may go up from under 30 to over 30, with a higher number of shoppers outside metros, more female shoppers and more people in local languages.

Singh and Rana (2018<sup>91</sup>) reported that from India's large number of middle class people, 300 million individuals want to buy products online. India is expected to have the second largest user base in the world, with 330 million to 360 million internet users in 2015. India has the potential to double its economic contribution through the internet marketing from 1.5 percent of GDP to 2.9 to 3.4 % by 2015. The internet technology contributed nearly 2 percent to India's GDP. This would rise from 2.8 to 3.3% by 2015, if India achieved as estimated growth in the number of internet users and internet technology related consumption and investment during this period.

A research report is given by Naveen Kumar (2018<sup>61</sup>) stating that e-commerce processes have made the shopping easy. The sales of e-commerce industry is expected to grow by almost 4 times by 2021 than the sales of 2015. This rapid growth in e-commerce is due to increase in smart phones and internet users, 3G/4G internet services, awareness in public, government initiative of digitalization, advanced shipping and payment options, entry of foreign e-business players etc.

### **2.2.6 Indian e-commerce industry analysis**

According to Indian E commerce Industry Analysis (June 2019<sup>116</sup>) report, by the advent of e commerce in India, the business ways are transformed in this country. The Indian e-commerce market is expected to grow to US \$ 200 billion by 2026 from US \$ 38.5 billion as of 2017. The growth of the industry has been accelerated by increasing internet and smartphone penetration. In India total internet usage base is expected to be 829 million by 2021 from 560.01 million as of September 2018. India's e-commerce revenue is expected to jump from US \$ 39 billion in 2017 to US \$ 120 billion in 2020, growing at an annual rate of 51 percent, the highest in the world.



Source [www.ibef.org](http://www.ibef.org)

**FIGURE 2.2 Indian Ecommerce Industry Analysis (2019<sup>116</sup>)**

### **Online retail sales**

Driven by rising smart phone penetration, the launch of 4G networks and increasing consumer wealth, online retail sales in India are expected to grow by 31% to touch US \$ 32.70 billion in 2018, led by Flipkart, Amazon India and Paytm Mall. During 2018, electronics industry is major contributor to online retail sales in India with a share of 48%, followed by share of apparels as 29%.

### **E - commerce developments**

In the Indian e-commerce sector major developments are as follows:

- Flipkart's launching of more offline retail stores in India for promoting its e-business in areas such as fashion and electronics. It is recently acquired by Walmart for US \$16 billion and also backed up by Israel based analytics for enhancing its efficiency in placing products in the market.
- Launching of Paytm payment bank, which is India's first bank with zero charges on online transactions, with no minimum balance requirement and free virtual debit card.
- Google's entry expected in India's e-commerce in 2018, which would be its first market.
- E-commerce sector in India made 21 private deals worth US \$ 2.1 billion in 2017 and 40 deals worth US \$ 1,129 million in 2018.
- Project Internet Saathi - under the collaboration of Google and Tata Trust for improving internet penetration among rural women in India, is started recently.

- EY reports e-commerce and consumer internet companies in India received more than US \$ 7 billion in private equity and venture capital in 2018.

### **Initiatives by government**

The Government of India has formulated various initiatives namely, Digital India, Make in India, Start-up India, Skill India and Innovation Fund since 2014. The timely and effective execution of such programs will certainly support the e-commerce growth in the country. The government is all set to promote the e-commerce sector in India, through various activities such as -

- For increasing foreign players' participation in e-commerce field, the Indian government hiked Foreign Direct Investment (FDI)'s limit for up to 100 percent (in B2B models).
- In the Union Budget of 2018 – 19, government has allotted Rs. 8,000 crores (US \$ 1.24 billion) to Bharat Net Project, to provide broadband services to 150,000 gram panchayats.
- From August 2018, the government is working on the second draft of e-commerce policy, incorporating inputs from various industry stakeholders.
- The huge investment of government of India, in rolling out of 5G fiber network, will help boost ecommerce in India.
- For supporting FDI in Indian e- market, the government of India released the Draft National E-Commerce Policy in February 2019. According to the draft, a registered entity is needed for the e-commerce sites and apps to operate in India, for ensuring a level playing field for all of its participants.

### **Government projects**

In the past four years, the achievements of government are as follows:

- Under the Digital India movement of government, various initiatives like Udaan, Umang, Start-up India Portal etc., have been launched.
- The government's project 'Internet Saathi', has reached 166,000 villages in India and has involved more than 16 million rural women.
- Udaan, a B2B online trade platform, is for connecting small and medium size manufacturers and wholesalers with online retailers and also providing them with logistics, payments and technology support. It has sellers in over 80 cities of India and delivers to more than 500 cities.

- According to UN's E-Governance index, India has jumped 11 positions to 107.

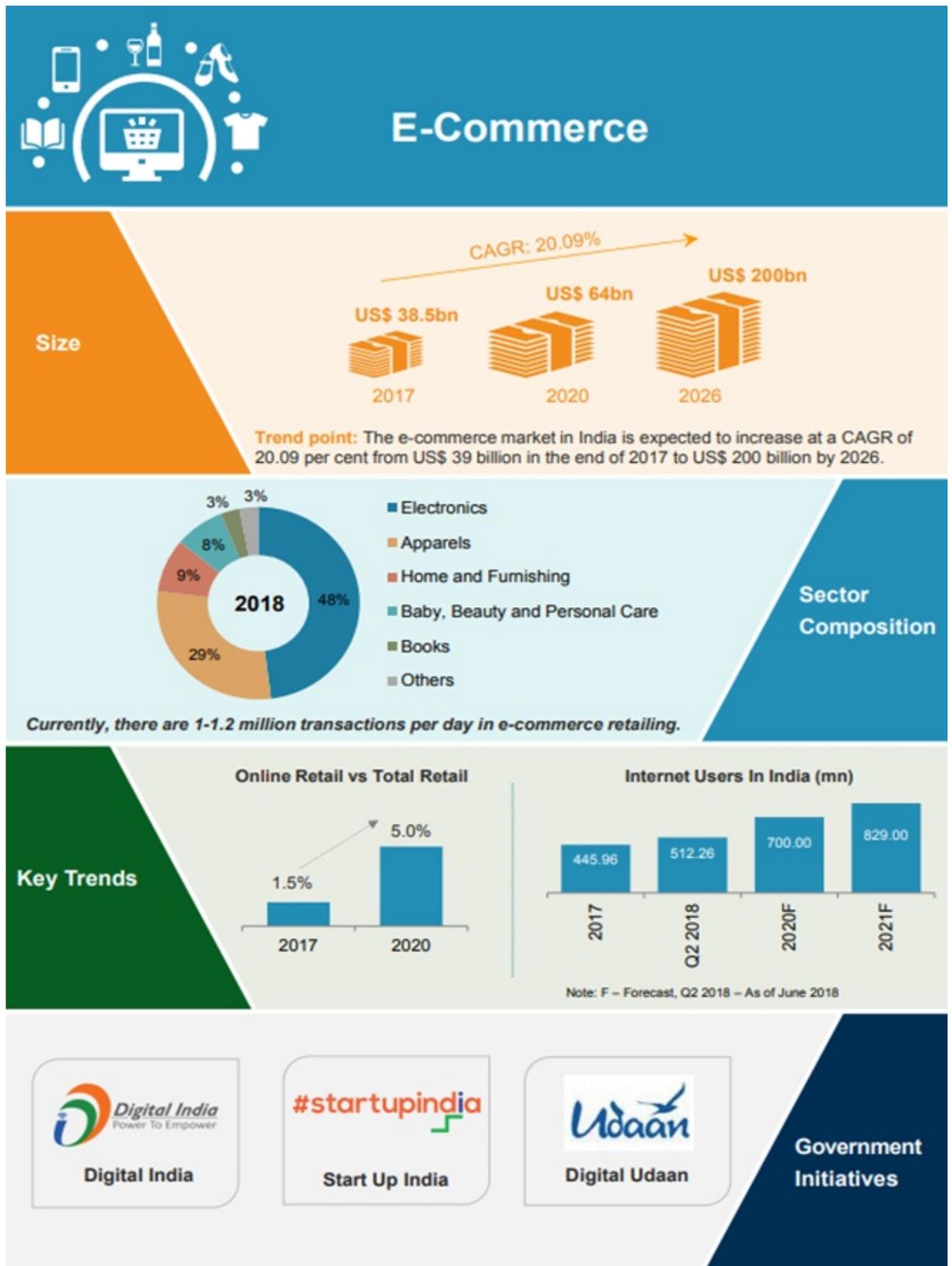


FIGURE 2.3: E-commerce in India (2019<sup>116</sup>)

- For digital payments a simple mobile based project -Bharat Interface for Money (BHIM), is also introduced by government.

### **The future**

The Indian e-commerce industry is shooting upward and is expected to surpass the US to become the second largest e-commerce market in the world by 2034.

The impact of Indian e-commerce industry is seen directly on micro, small and medium enterprises (MSME) in providing finance, technology and training and also favorable triggering effect on other industries as well. Technological innovations like digital payments, hyper-local logistics, analytics driven customer engagement and digital advertisements are contributing to the growth in this sector. So the growth in e-commerce sector will also boost employment, increase revenues from export, increase tax collection by ex-chequers and provide better products and services to customers in the long-term.

## **2.3 Different Countries' Attitudes Towards Online Shopping**

Now a days online shoppers have boundless access to products across the globe. A comparison of online consumers of different countries is given in the following online shopping researches.

Wen Gong et al (2012<sup>104</sup>) investigated the perceptions of online customers in China and US. 503 respondents' responses were collected through nationwide survey in China and the results were compared to the data revealed by Pew Internet and American Life Project. It was found that the Chinese and American shoppers have significantly different perceptions towards online shopping. The three aspects – advantage, complexity, risk were considered. The Chinese buyers were found to perceive online shopping as more advantageous than the American ones because of its convenience of being able to shop anytime and anywhere and also as it can help in saving one's money, somewhat different attitude than that of Americans. In terms of perceived complexity, the Chinese customers found internet shopping more complex than the American ones due to poor distribution networks and lack of experience. The Chinese customers perceive online shopping to be lesser risky than the American ones and their preferred mode of payment being cash on delivery (COD) instead of the credit card payments which is more used by the Americans.

This study is from Japan by Kanokwan et al (2006<sup>40</sup>) about repurchasing attitude of customers. Responses from 1215 Japanese online customers were collected and it was found that factors of satisfaction, confirmation, perceived usefulness and perceived incentives, customer loyalty are the factors significantly influencing the online shoppers' intention to repurchase online. The study emphasizes on developing online incentives and ways to enhance customer loyalty to promote online repurchasing. The researchers here, have developed, one model too by analyzing the results.

A research report by Dyn (2015<sup>28</sup>), a cloud based internet performance company about global consumer online shopping, was given for optimizing the online infrastructure of companies. In this research Dyn surveyed more than 1400 customers across 11 countries in North America, EMEA and Asia Pacific to find out their shopping preferences, what they were experiencing and expecting, what was holding them back from shopping online and on mobile and what online retailers could do about it. The results of this research showed that more than 90% of customers surveyed would make 25% of their purchase online. Also, at least 85% of shoppers are expected to make more number of online purchases in the coming years. More than 85% of respondents, found differences in their shopping experiences between shopping in store, online and on their mobiles. 85% customers agreed that the speed and quality of websites influenced their trust in the company. About 65% of shoppers are not willing to wait for more than 3 seconds for the websites to load and out of them, half expected to load instantly. In about one year nearly about 67% of respondents have shopped online with sellers located in other countries.

The research investigation by Yoldas (2012<sup>89</sup>), is about comparison of buying behavior of online customers in the two nations UK and Turkey. This is about finding the influence of factors such as culture, income, education, age, gender and similar other factors and how their results are different in two countries. The sample of total 170 respondents was surveyed online. It was found that the online shopping was higher in UK as compared to that in Turkey. This is, because of Turkey peoples' security perceptions, not having enough knowledge of the products, the trust factors among the people of Turkey. Also, the differences in two countries are due to the different preferred payment modes. It is given here, that UK shoppers prefer online payment more, whereas Turkey shoppers prefer to pay by cash on delivery.

Although online shopping is now a global phenomena (2017<sup>105</sup>) but buyers in different regions are still much more dissimilar due to their cultures and environments.

Market researches show that majority of the people in Germany prefer online shopping once or few times in a month, followed by Switzerland, whereas majority of Chinese people do online shopping several times in a week. Chinese customers have adopted the internet as a retail channel much faster than their global peers. Another factor is demography. China's online customers are the youngest and the most employed ones as compared to online shoppers of other countries of the world. So China is becoming the future model of online retailing.

India's retail e-commerce sector is one of the fastest growing market in the world (2017<sup>105</sup>), growing at the rate of 130 percent from year to year. There are about 300 million internet users in India as compared to 1.3 billion population of the country. Broadband subscription prices going down and launching of 4G service have become the driving forces of e-commerce industry in India. E-commerce has greatly expanded the online shopping, from buying groceries to furniture, from apparel to accessories and from beauty products and jewelry to ticketing. In coming next 15 years, India would be the greatest source of online shopping buyers than any other country.

From a survey conducted by Common Sense Advisory (2019<sup>117</sup>) of 3000 online shoppers from ten countries, language was a great issue for online shopping. They preferred buying from websites in their native languages. The results of this survey are as follows-

#### **Effect of native languages on global sales**

- Want to buy products in their native language – 75%
- Rarely or never buy from English only websites – 59%
- Prefer navigation & some content translated – 67%

Also in another study of 30,000 online shoppers(2019<sup>117</sup>), almost all customers preferred to shop and make purchases on websites, where buying was through their local currency. Even one third are likely to abandon a purchase if pricing is listed in USD only.



**FIGURE 2.4** Effect of native languages on global sales (2019<sup>117</sup>)



**FIGURE 2.5** Effect of local currency on online shopping (2019<sup>117</sup>)

**Local currency's effect on online shopping**

- Prefer to shop in their local currency – 92.2%
- Likely to abandon the purchase if pricing is listed in USD only – 33%

E-commerce Reviews (2019<sup>117</sup>) says that the world online sales are going up rapidly and are expected to reach 8.8% of total retail spending in 2018 as compared to 7.4% in 2016. Country-wise, UK has the highest retail e-commerce sales (15.6%), followed by China (13.8%), Norway (11.5%), Finland (10.8%) and South Korea (10.5%).

In this review, ratings by online shoppers for different websites are given as follows –

- Amazon (80%)
- Target (67%)
- Best Buy (64%)
- Walmart (62%)
- eBay (59%)
- Trip Advisor (55%)
- Toys R Us/Babies R Us (53%)
- Kohl's (50%)

A research was carried out by M. Mahbubur Rahaman (2014<sup>53</sup>) on 100 students of six universities from Sylhet region of Bangladesh. In this analysis, 46% of students were found to have experience in online shopping. The reasons for lower percentage were, concern about reliability of online shopping, worries about internet crimes, not having credit / debit cards, not able to touch and feel the products, perceiving delivery process slow. They browse about products online but prefer shopping in actual real store environment as they find it to be a social activity, and enjoy in-store shopping more. But, 89% of student respondents expressed their willingness to shop online for its convenience. The items most shopped by those students online were in the following order of preference, such as software, books, music, gifts, toys and sports items. Also information, communication, entertainment, leads on new products and places, sites for jobs and news were found to be most utilized sites. In this research, the Ebay and Amazon were the most favourite sites, whereas local e-tailer sites cellbazaar.com and bikroy.com were also used. It is concluded here that although the people of Bangladesh are trying to know the use of online shopping, but the internet infrastructure and the socio-economic condition does not allow them to become very optimistic about the concept of online shopping.

In Taiwan a research study was carried out by Chun – Chun Lin et al (2011<sup>18</sup>) to determine the factors affecting online customer satisfaction. In this research six factors studied were – information quality, system quality, service quality, product quality, delivery quality and

perceived price as critical factors affecting online customer satisfaction. A survey was conducted on 390 university undergraduates of Taiwan who had online purchase experience. The result showed that online shoppers' satisfaction was positively and significantly affected by information quality, system quality, service quality, product quality, delivery quality and perceived price. Delivery quality is more effective factor than product quality. This research suggested the online seller to make a speedy, timely and quality delivery.

In a Pakistan based study by Bashir (2013<sup>4</sup>) on a sample size of 240 respondents ,survey was done through direct contact as well as email . It was found that price, time saving, convenience are important factors while the social circles on internet, affect online shopping choices of people.

The researchers Guo et al (2011<sup>97</sup>) observed the online shopping activities of 1 million users at Taobao, a Chinese online marketplace and one of the largest e-commerce website in the world. They analyzed that the use of instant messaging tool and social network to be most important for online shopping.

A research on online shopping was conducted in Greece and Taiwan by Keisidou et al (2011<sup>23</sup>). The considered factors were Personal Innovativeness of Information Technology (PIIT), self efficacy, perceived security, privacy, product involvement and their effect on customers' attitude towards online shopping. It was seen that PIIT, perceived security, product involvement have a more significant effect on the attitude towards online shopping. Greek customers (46% internet penetration in 2011) prefer infrequent online purchases of electronic equipment and computer hardware products while the Taiwanese (70% internet penetration in 2011) are more comfortable with frequent online general product purchases.

## **2.4 Customer Preferences For Online & Offline Shopping**

A multi – attribute analysis of preferences for online & offline shopping was carried out by Aron et al (2005<sup>10</sup>). It was based on differences across products, consumers and shopping stages. In this research review, for knowing attributes as perceived by target market as better online or offline, a multi part survey was carried out to know how perceptions about product attributes make differences in online or offline shopping for different products, consumers and shopping stages. Two groups of participants – a student sample of 199 respondents and a sample of 214 respondents form a national survey panel,

were asked to rate their likelihood of shopping online or offline for each of series of products at the search stage and purchase stage. Then they were asked to give ratings for importance of attributes for products such as clothing and books, and to rate the extent to which they thought each attribute was delivered online or offline. In both groups of samples, the main factors affecting the shopping mode preferences across products and across customers were different in importance values assigned to attributes that favour online shopping and offline shopping. Online shopping is preferred when attributes like large selection and quick shopping are required, and offline shopping is preferred when attributes like personal service and a hands-on experience is needed.

The conclusion is limited by the particular products, product attributes and samples of customers chosen. As the respondents are more familiar with computers, the number preferring online shopping is perhaps higher than the general population.

Chayapa and Cheng (2011<sup>15</sup>) have given an over view of online shopping decision process by comparing the offline and online decision making by customers and identifying the factors that motivate online customers to decide or not to decide to buy online.

Laudon and Traver (2009<sup>47</sup>) developed a consumer behavior frame work for comparing online consumer decision with offline decision. When customers want to buy product, they look for brand, quality of product and services. Some products can be purchased and shipped easily online such as software, books. On the other hand, some products are hard to decide through online channel. Website layout is important here to influence customers to buy product online. So online sellers can use high technology to improve their websites to influence consumer perceptions of the web environment (Prasad and Aryasri, 2009<sup>70</sup>). If customer finds website too slow, not navigable, or not safe enough, it will have negative effect on willingness of consumer to buy from the website. Consumer's experience with online shopping (Broekhuizen and Huizingh, 2009<sup>14</sup>) or consumer skills, which refer to the knowledge that consumers have about product and how online shopping works also influences online shopping behaviors. In online purchasing click-stream behavior is another important aspect (2009<sup>47</sup>). It refers to behavior that consumers search for information through many sites on web at the same time, then to a single site, then to a single page and finally to a decision to purchase.

## **2.5 Factors Leading To Increase In Online Shopping**

The World Wide Web has revolutionized the purchasing system in world, also the attitude and behavior of people has changed all over the world towards online shopping. Internet users have discovered the ease and convenience of buying goods from the comfort of their homes.

In the present study many reviews from different countries are presented.

In the research study by Jamal Uddin and Sultana (2015<sup>57</sup>) attitude of Bangladeshi online shoppers was measured and the factors critical for their online preferences were considered. In this research with 524 respondents, demographic factors were considered and family structure such as the nuclear family structure along with internet awareness were found to be critical factors for online shopping preferences. The result indicated that while the female respondents preferred in-store shopping because of enjoyment of shopping experience, more perceived reliability and perceived discomfort in online buying. The 66% of respondents considered online shopping as a need for its convenience, particularly among families with both the spouses working.

In another empirical study about consumer buying behavior towards online shopping, a survey was carried out by Rahman et al (2018<sup>54</sup>). A questionnaire was constructed for studying customer behavior. It is reported here that Bangladeshi online shoppers are young, mostly below 40 years. They do online shopping because it saves time, offers home delivery, easier in shopping and offers variety of products for apparels, accessories, and ticketing than traditional stores. They mostly depend on cost and experience as the basis of quality judgment and for payment system prefer cash on delivery option. Most of customers get information initially from Facebook advertises, which is pursued by friends and family followed by “word of mouth” communication. However, privacy and inability to touch and feel are the most disliking factors for them.

In the survey conducted by Sharma (2013<sup>8</sup>) the preferences and trends of online shopping was determined with 250 respondents. This study was based on factors like, growth of e commerce due to higher incomes, busier lifestyles, greater awareness and flexibility in the usage of internet, computers and smartphones and easily available product reviews. For effective online shopping, the factors include secure websites, simple and easy availability of options with informative layouts of website designs.

The other study was carried out in Mumbai by Singh (2012<sup>77</sup>) on 200 respondents, for knowing their preferences to shop online, and in the later stage about their preference for

buying grocery online. The shoppers liked shopping of grocery online due to the facts: easy to order, save time and avoid queues, discounts and offers, available variety.

## **2.6 Factors which motivate people towards online shopping**

Chayapa and Cheng, 2011<sup>15</sup> have classified the factors which motivate the people for online shopping into four categories – convenience, information, available products & services and cost & time efficiency.

**Convenience** – As given by empirical studies, convenience of internet is one of the reasons for customers' interest to buy online (Wang et al, 2005<sup>103</sup>). Online purchase facility is available to customers round the clock compared to traditional store. Research on this factor shows that 58% of respondents chose to shop online because they could shop after hours when traditional shops are closed and 61% opted online shopping because they want to avoid crowds and waiting lines. Customers also look for online services besides products. So even in off hours, customers can ask questions, get necessary support or assistance, which has provided convenience to customers.

Some customers choose online shopping to avoid face to face interaction with sales person in order to avoid his pressure, manipulation and control in the market place (Goldsmith and Flynn, 2005<sup>29</sup> Parks, 2008<sup>66</sup>). So they want to shop freely and make decisions by themselves without involving sales persons.

**Product information** – Data accessing has become very easy by internet (Wang et al, 2005<sup>103</sup>). Through internet sellers, customers are provided with more product information. So online shoppers get not only information they need about products from websites but also get advantage from product's reviews by other customers (Keeney, 1999<sup>42</sup>).

**Available products and services** – Apart from faster and easier transactions through internet, online store offers customers benefits by providing greater variety of products and services that they can select from (Lim and Dubinsky, 2004<sup>48</sup>, Prasad and Aryasri, 2009<sup>70</sup>). Buyers get information about all kinds of products which might be available only online from all over the world. Most companies have their own websites to offer products or services online, along with their stores or offices. Many retailers sell certain products only available online to reduce their retailing costs or to offer customers with more choices of sizes, colors or features. Yves Rocher, a French company, does not have the front store in the U.S. It offers the website so that U.S. customers can order products they want on the online shopping site and the product will be shipped to their house. Besides, online

shopping sometimes offers good payment plans to buyers (Amin, 2009<sup>6</sup>) as per their own preference and convenience (Anonymous, 2009<sup>7</sup>). Internet technologies have made transactions easier and faster.

**Cost and time efficiency** – According to Rox (2007<sup>81</sup>) online shopping customers are often offered a better deal, they can get the same product as they buy at store at a lower price. Online customers get more chances to compare price of products and services from different websites and find the products with lower prices than buying from local stores (Lim and Dubinsky, 2004<sup>48</sup>). Some websites, Ebay for example, offer customers auction or best offer option, so they can get a good deal. Online shopping makes shopping a real game of chance and treasure hunt and makes shopping a fun and entertainment (Prasad and Aryasri<sup>70</sup>). In addition, online shopping can be done anywhere and anytime, it makes consumers' life easier as they do not need to go in traffic, look for parking spot, wait in checkout lines or be in crowd in store (Childers et al, 2001<sup>17</sup>). As such customers often find shopping from the website, can reduce their psychological costs (Prasad and Aryasri<sup>70</sup>).

## **2.7 Factors That Restrict Buyers From Online Shopping**

**Online Security** - Many researches have found that the payment modes in online shopping are often made with credit card. Studies by Chen and He (2003<sup>16</sup>) have shown that the customers tend to buy product and service from the seller whom they trust, or brand that they are familiar with. The success or failure of online retailers is very critical and depends on online trust<sup>70</sup>. Security seems to be a big concern that prevent customers from shopping online (Laudon and Traver, 2009<sup>47</sup>) because they are worried that the online store will cheat them or misuse their personal information, especially their credit card (Comegys et al, 2009<sup>19</sup>). Sanjay Kumar (2015<sup>88</sup>) has also found in his studies about insecurity of internet banking password and credit card password, while online shopping transactions. For instance, report indicated that 70 percent of U.S. web users are seriously worried about their personal information, transaction security, and misuse of private customer data (Federal Trade Commission, 2001<sup>26</sup>).

**Intangibility of online product** - Some products of intangible nature are less likely to be purchased online. Generally customers are less inclined to buy clothes through online channel (Goldsmith and Flynn, 2005<sup>29</sup>) because they have no chance to try actual product (Comegys et al, 2009<sup>19</sup>). While online purchasing, customers cannot see, hear, feel, touch, smell, or try the product that they want. In many cases, customers prefer to examine the

product first and then decide to buy (Junhong, 2009<sup>39</sup>). Some people find the product information provided in website not sufficient to make a decision and they get disappointed when it does not meet their expectations (Liu and Guo, 2008<sup>49</sup>)

**Social contact** – In the study by Prasad and Aryasri<sup>70</sup> it has been found that many shoppers would find it difficult to make a selection and need experienced salesperson's professional assistance while shopping. Some customers are highly socially connected and for making purchase decisions depend on others opinions. There are also customers, who sometimes like to shop at traditional stores because they want to have entertainment and fulfill their social needs.

**Dissatisfaction with online shopping** – Comegys et al<sup>19</sup> found many reasons for why customers walk away from online shopping. Some of their past online experiences account for this. In online shopping, they may get unwanted product or low quality products, product does not match what is described or expected. The product may be fragile, wrong, or not working. Some online retailers may not agree to refund those products even though it is not what the customers wanted. Late or slow delivery is another thing that affects online purchasing decision.

In purchasing from online shopping, customers can easily track their products during delivery time (Sanjay Kumar, 2015<sup>88</sup>). The other benefit is they can purchase the product from the foreign marketers.

A survey of online shoppers in Canada was conducted by White Paper Study (2013<sup>65</sup>). The purchase media preference was as follows – desktop, laptop, smartphone, tablet. By online marketing people purchase products like apparel, books, movies, music, health and beauty products, consumer electronics, computer hardware, toys, tourism, travel, leisure, automobiles and also get financial services done. The order of importance for preference for shopping online was the ease of comparing prices, followed by viewing variety through browsing, perception of being less expensive. The reasons for not preferring online shopping were shipping costs, duty costs, uncertainty about product quality.

## **2.8 Study Of Variables In Online Shopping**

A great number of variables affecting online shopping have been studied by researchers from the time being. Some are price, refund, convenience, auction websites, security, brands, search engines, sales promotion, online shopping malls, etc.

In a study by Akbar and James (2014<sup>86</sup>) of nine independent variables and their receptivity

order on online shopping is given as follows. Among the nine variables, the strongest influencers from highest to lowest were found as: price, refund, convenience, auction websites, security, brands, search engines, promotion and online shopping malls. In a sample of 240 respondents, it was asked to rate the items from “strongly disagree” to “strongly agree”. The study described how online customers’ behavior was influenced by various factors at the 3 purchasing stages- information search (search engines, online shopping malls, auction websites) (moderately influenced), alternative evaluation stages (convenience, price and brand) (strongly), purchase decision stages (security, promotion, refund) (moderately influenced). It was stated further that the ratings can vary product wise.

In a study conducted in Chennai by Shalini and Hema Malini (2015<sup>27</sup>), about variables affecting online shopping, the security risk was of the highest concern. There was preference for cash on delivery. Customers were doubting about the quality of products purchased online. While the other factors favoured online shopping.

The online marketing researchers Ghosal, et al (2015<sup>35</sup>) collected responses from 100 respondents in Bengal. It was revealed that while using online shopping the main factors: convenience, trust, security, perceived risk and flexibility of the medium affected the people. This study suggested to create awareness among people about the secure options available in online shopping and its advantages and make the procedures easier.

In China a survey of 435 customers from Beijing was conducted by Zhang (2011<sup>38</sup>) and the findings showed that the important factors influencing the adoption of online shopping behavior included perceived risk, consumer resources (internet access), service quality, subjective norms (perceptions of others in society which affect us), product variety, convenience, website factor.

Researcher Na Li and Zhang (2002<sup>59</sup>) carried out an analysis of 35 empirical articles on online shopping attitudes and behavior. The results showed online shopping to be a multidimensional and multidisciplinary phenomenon for understanding relationship between online shopping and other factors.

In a study conducted in Delhi by Dipti Jain et al (2014<sup>22</sup>), a sample of 160 online shoppers was surveyed to understand the impact of perceived risk, perceived usefulness, perceived enjoyment, perceived ease of use on the online shoppers. The findings revealed that perceived risk negatively affected the consumers’ attitude towards online shopping while the other factors such as perceived usefulness, perceived enjoyment, perceived ease of use

have no significant impact on customers' attitude towards online shopping.

In Tirupattur (2018<sup>84</sup>) the online shopping determinant factors which influence more were identified as female shoppers above 45 years of age, primary education level, students, income level between Rs. 25,000 to 50,000 and married respondents than the other demographic factors of respondents. It also concluded that the females are facing more problems during online shopping.

Researcher Puja Gupta (2015<sup>73</sup>), did study on online business strategies to find the factor influencing online shopping behavior. Here based on literature review, hypothesis were given and tested using various statistical techniques like tabulation, exploratory factor analysis and ANOVA. The results of this research showed, the factors like age, education and household income are found to be influencing online shopping behavior. Whereas shopping enjoyment, reduction in time and cost, trust, shopping habits, product return policy and perceived risk are found to be influencing attitude of consumers. Besides this research shows that not withstanding risks involved, customers are willing to shop online. Further, attitude of consumers towards online shopping, subjective norms, perceived behavior control and domain specific innovation are found to be affecting online shopping behavior. According to the researcher, these findings will be useful to the sellers of online business for effectively targeting their market and for framing effective online business strategies.

An investigation was carried out by Shanthi and Kannaiah (2015<sup>76</sup>), on the students of University of Madras and Madras Christians College, for their awareness about online shopping. The online shopping is undergoing transformation because of change in life style of shoppers in India and increasing online activity. Major attraction of online shopping is the ease and discounts available for different kind of products. The findings of this study will enable the e-retailers to develop marketing strategies for attracting customers.

Through this study it was found that the consumers' perception on online shopping changes from individual to individual depending on their personal characteristics. The perception is bounded to a certain extent by proper connectivity and exposure to the online shopping. The research highlights the fact that the youngsters between the age of 20 – 25 years do mostly online shopping. The study also shows that the cost of products is the most influencing factor on online shopping e.g. majority of people buy books followed by tickets (railway, movie, concerts). The second most influencing factor is the security of products,

and the third most influencing factor is based on reputation of the company, privacy of the information and nice description of goods. The study emphasizes on the easy navigation and access to the internet with people and to be more convenient. The results also show that most of the respondents buy clothes from flipkart.com, one of the favourite online shopping websites in India.

For deep investigations in context of online purchase intention, an extensive literature review is given by Akar and Nasir (2015<sup>24</sup>). It is based on in-depth analysis of 100 relevant articles which have used empirical research methods on consumers' online purchase intentions. Results of this analysis cite many independent variables involved in this research. These variables are classified into six main categories – (1) consumer characteristics, (2) characteristics of the web as a sales channel, (3) website characteristics (4) merchant characteristics, (5) social media and (6) product characteristics.

There are many variables involved in characteristics of online consumers. Most of research papers show demographic profiles and techno-graphics of online customers, specially gender, age, education, income, culture, internet usage level, and online purchase experience. Results indicate that males do more online shopping compared to females. Also studies indicate that younger people make more online purchases than older people due to their internet usage experience. Past research papers agree too that online purchase experience and high income also increase the online purchase tendency of customers. The most important factors from the customers' perspective are trust, perceived risk, attitude, and personal innovativeness. In online environment trust and perceived risk are considered as a challenge. If customers trust vendors or websites and have confidence that the environment is risk free, they do more online purchases.

The majority of research papers on online purchase, have given web as a sales channel. And service quality and after service quality are among the most important dimensions of web channels to satisfy online consumers. Advantages offered by web channel, attract customers to more convenient, easier, time saving, and more enjoyable online shopping.

In previous research papers, the majority research work was done on web atmosphere. According to this analysis a website should be aesthetically appealing, reliable, responsive, and include informative, good and rich content. Product type and product characteristics are also intensely analyzed in past researches. Those researches revealed that customers purchase all types of goods and services online. These state that buyers search the products and check product price, guarantee, and variety. Findings show positive impact of both

product price and product knowledge on online purchase intention.

A research survey was carried out by Raut and Walvekar (2016<sup>102</sup>), to find out if the profession has any impact on preferences for purchasing online and whether the socio – economic status of the customers affects their preferences for online shopping. This study involved 50 respondents of Pune region and the results revealed that the entrepreneurs showed more preference for online purchasing as compared to the working class respondents. Besides, the factors such as socio economic status and education lead to certain people taking a greater advantage of gaining access to technology and therefore this affects their use of online shopping.

An online survey by Ameri (2009<sup>25</sup>) of 220 online shoppers, 9 virtual store managers and 10 academic experts was carried out. The findings are such that online shopping behavior is affected by the following factors: perceived characteristics of web as a sales channel, personal characteristics of online shoppers and product characteristics.

### **In Gujarat**

In the findings of doctoral research by Patel (2016<sup>101</sup>), the study of consumer behavior of online shoppers in Gujarat was given based on the effects of the demographic factors and psychographic factors. The demographic factors studied here are gender, age, education and income.

In this research work, it is found that there is no significant relationship between gender of respondents and online shopping behavior but a significant relationship was found here based on age of respondents and online shopping behavior. According to this research, the respondents belonging to age group of 21 to 60 years are more favorable to online shopping than of age group of under 20 years and above 60 years. Education of respondents too affected online hopping behavior. Respondents having higher education were found to be more favorable to online shopping than that of having lower education. It is revealed from the study that customers having higher household income are more favorable to online shopping than that of having less income. Respondents having income of Rs. 5 lakhs to Rs. 10 lakhs and above are highly influenced by online shopping than respondents having household income less than Rs. 5 lakhs.

Further, in this research study relationship between eight psychographic factors and attitude towards online shopping is analyzed. These eight factors are perceived risk, reduction in time and cost, shopping enjoyment, shopping habits, product return policy, service

infrastructure, trust and non product delivery.

This study revealed that factors like reduction in time & cost, shopping enjoyment, shopping habits (like examining the products, negotiating the cost), trust of shoppers have positive relationship with attitude towards online shopping. While factors like perceived risk (misuse of financial details, over charged by sellers), absence of product return policy (money back guarantee, free return-ship service), show negative relationship with attitude of customers towards online shopping.

The results of this study indicate that there is no relationship between non product delivery and attitude towards online shopping. As it is seen here the relationship between attitude towards online shopping and online shopping behavior is positive, customers having more favorable attitudes towards online shopping are more likely to shop online. Customers' specific attributes such as shopping enjoyment, trust, reduction in time and cost, shopping habits are likely to lead to increase in online buying.

Also this research reveals that relationship between subjective norms and online shopping behavior is positive. Shoppers who perceived the subjective norm of favoring online shopping are likely to intend to shop online. There is also significant influence of subjective norm or possible approval from friends and family for online shopping behavior. Researches show that relationship between perceived behavior control and online shopping behavior is positive. Customers having confidence and skill for internet are more likely to opt for online shopping. It is found that relationship between domain specific innovation and online shopping behavior is positive. The customers who are shopping products online may appear to be innovative in exploring internet, and are also likely to be driven to use internet for online shopping.

According to an announcement made by Jio and Reliance Industries in Vibrant Gujarat Summit held in January 2019<sup>11</sup>, the company is planning to launch a Retail's new e-commerce project for Gujarat, the first ever state which will involve its more than 5100 smaller Jio Point stores in over 5000 cities and towns of Gujarat. This project will employ 12 lakhs shopkeepers in the state. For this e-commerce venture to reach customers, 5G Jio's network is developed. People with no access to internet or who have never shopped online would be able to avail this opportunity to shop online for the products like food, clothes, entertainment, health and security. This project will help to build smart cities and smart villages in Gujarat.

### **2.8.1 Website quality**

The research study by Flick (2009<sup>43</sup>) was aimed to find the relation between online shopping acceptance and purchase intention and that of perceived website quality and trust in it. A sample of 323 respondents from Institute of Carolina, United States was studied for responses. The website quality determinant factors were taken as attractiveness, brand equity, opportunism, communication. For customers' trust in the website, the perceived site quality was found to be important, while the ease of shopping online as well acceptance for it is positively related to purchase intentions of online shoppers. Also, gender of the online shoppers had no influence on their decision to purchase online.

A research model was developed by Lee and Lin (2005<sup>31</sup>), for establishing a relationship between e-service quality dimensions (website design, reliability, responsiveness, trust and personalization) and overall service quality and customer satisfaction which in turn could lead to purchase intention. Data from 297 customers was used to test this research model. The research model on online shopping was developed by modifying SERVQUAL model. The findings show that e-service quality dimensions of website design, reliability, responsiveness, trust affect overall service quality and customer satisfaction.

A data was collected from 500 customers in Iran, by researchers Mostaghel (2006<sup>79</sup>). It revealed that the online shoppers of Iran felt the need for improving internet infrastructure. They conveyed that in Iran, the broadband internet is not available for everyone and the internet speed is quite slow. Also fast and continuous internet access is required, as well as website access process should be simple.

Farid et al (2012<sup>32</sup>) researched on customer satisfaction for online shopping based on three factors – website design, information quality and delivery. The data was collected from survey of 251 University students of Malaysia. The results revealed that website display is the most affecting factor for customer satisfaction. So the researchers have suggested the sellers to improve their website design with its layout and content and introduce possible medium of interaction with customers for faster, more efficient problem solving and thus increasing trust and customer satisfaction in online shopping.

The research by Hung et al (2014<sup>92</sup>) involved study of 377 customers of four online stores from Taiwan to evaluate an integrated view towards customer satisfaction with e-marketing service. Twelve factors are considered to examine customers' satisfaction. The analysis revealed not all factors have significantly influence but few of these factors – service quality of target websites has the largest impact followed by information quality, system

quality, perceived risk, perceived online shopping attitudes, word of mouth marketing have effect on customer satisfaction. As online shopping is now becoming more common and less experimental, and with extensive information available online, shoppers may spend lot of time in comparing the products and therefore impulsive purchase and convenience of online shopping have relegated the customer satisfaction from product quality to lower order. Online sellers can concentrate on the more effective e-service qualities for increasing customer satisfaction and retain their customers and improve their business.

In the research paper by Hunter et al (2011<sup>80</sup>), it was stated that in the online search process, the customer can shift his attention on another product or service and go for purchasing that. So the website content like displays, ads, cues, play an important role in attracting the customers' attention.

### **2.8.2 Effect of demonetization**

Banerjee and Sayyed (2017<sup>69</sup>) researched on the effect of demonetization on customers' frequency of buying products online and customers' mode of payment for online shopping post demonetization of November, 2016 in India. It revealed that the frequency of online shopping shot up from 27% to 53%. Earlier cash on delivery mode of payment was preferred (43% of respondents) but after demonetization, cash on delivery option as payment mode got reduced to 2% and buyers preferred using debit card more as mode of payment for online shopping (43%).

In the doctoral research work by Sharma (2017<sup>62</sup>), the perceived risks on online shopping were studied in the state of Gujarat, India. Results of literature survey here showed that there are six main types of perceived risks. These were identified as– financial risk, performance risk, social risk, psychological risk, time risk and privacy risk. It was analyzed that there was a statistically significant influence of perceived risk on purchase intentions of online customers. Statistically it was proved that financial risk, social risk, time risk and psychological risk have more impact in comparison to performance and privacy risk on customers' future intentions to shop online.

## **2.9 Customers' Expectations And Experiences**

The research analysis by Hoque (2014<sup>55</sup>), for studying the customer expectation and online shopping among people of Bangladesh was carried out on sample size of 100 respondents.

It was found that the important factors affecting online buying behavior of people of Bangladesh were product price, time saving aspect and convenience. The results also showed that though a moderate number of customers were satisfied with online shopping but less than half of them would remain loyal to the online sellers and could be retained if the businesses constantly satisfied their needs about product information on websites, superior customer service, timely delivery & good quality of products and improved website designs.

A study was conducted by Right Now Technologies (2011<sup>64</sup>) which is now a part of Oracle, to determine how British customers interact with their online sellers while shopping. It was found that the online shoppers used online channels to search, compare, purchase, get after sales service and support and further expected quicker response as the cost of purchased goods increased. They expected reply within 24 hours reduced from 48 hours and then to finally expecting reply on instant chat. The causes of unfulfilled expectations include unclear return policies, lack of online help or directions about purchasing steps, lack of product information and delivery charges information, complicated buying processes. Thus online customers became fans or critics on social media and online communities, mainly for – receiving coupons, discount offers, for getting tips for best practices of product usage, for following a favorite brand. Thus online sellers were suggested to reach out more effectively through tools used by online customers, such as online social networking media and chat to increase customer satisfaction, loyalty and retaining and expanding the customer base.

For a quantitative research Liveperson commissioned LoudHouse (2013<sup>99</sup>) and carried out 6000 online interviews of online shoppers across the world. These were conducted to find out the store and online shopping experiences, and what buyers are looking for in online shopping experiences. The participating countries, with the number of online interviews are as follows: USA (2012), UK (1126), France (538), Germany (502), Italy (530), Australia (1002). The results revealed certain trends in online shopping such as Channel Blur: the shoppers are using the three channels of shopping- mobile shopping, in-store shopping and online shopping interchangeably for maximizing information access, convenience and best deals but there should be attention on service gaps of fast customer response, live chats and social media. Abandonment: on web site when customers do not gain an easy or fast access to information needed, they tend to exit the website for another option. High expectation of the online experience: online customers have higher expectations like quick response,

fast and simplicity and easy access to needed information.

Verhoef et al (2009<sup>68</sup>), proposed conceptual model in which the determinants of customer experience are discussed. Determinants can be social environment, self-service technologies, retail atmosphere, price, assortment, customer experience in alternative channels, retail brand. These are found important in framing the customer experience management strategies.

A research report from China is given by Khan et al (2015<sup>90</sup>) showing that the customer satisfaction depends on online store perception and online shopping experiences. A survey was conducted on 302 customers. This showed that seven factors – price, convenience, product information, return policy, financial risk, product risk and delivery risk are important for customer satisfaction to repurchase in e stores. The risks negatively affect the customer satisfaction which affects the repurchase intention.

Jun and Jafar (2011<sup>30</sup>), conducted research survey on a sample of total 405 online shoppers from three major cities of China. The analysis was carried out on factors such as perceived usability, perceived security, perceived privacy, perceived after sales service, marketing mix and perceived reputation of seller. The findings showed these factors to have a relationship with customers' attitude to adopt online shopping in China, only marketing mix and perceived reputation (seller's trustworthiness) showed to have an important effect on customers' attitude to adopt online shopping in China. As products cannot be directly felt but shoppers depend on the product or brand or vendor's image for purchasing in market place.

Kramer (2012<sup>45</sup>) researched to determine factors which affect online shopping for apparel and the interaction between consumers' use of the internet for information search and their choice of channel (stores or the internet) for their final purchase. Questionnaires were given to a sample of 212 students. Results showed that no interaction was found between in-store shopping for apparel and e-shopping or internet search. Also results showed that the attitudes towards e-shopping were formed by internet search. Thus, the internet search component is a critical factor in online shopping for apparel. Suggestions of friends and family were found to be twice effective for men than for women. This research model explained 67.5% of the variance in e-shopping for apparel for women and 71.5% for men.

The study by Hsu and Erdene (2012<sup>94</sup>) in Mongolia, used e-survey to collect data from 107 online shoppers. The result showed that buyers' innovativeness and perceived benefits of online shopping had a positive effect on customer shopping attitude, while perceived risk

(of revealing personal information) had a negative effect on the customers' online shopping attitude. These all indirectly effected the intention of online shoppers.

In Malaysia Jusoh and Ling (2012<sup>108</sup>) conducted a research study by collecting responses via questionnaire from 100 respondents in Ipoh, Malaysia to explore how socio demographic pattern of online shopping (type of goods, e-commerce experience, online hours) and purchase perceptions (about product, customer service and customer risk) affect consumers' attitude towards online shopping. In the demographic factors, only the income factor was found to have significant effect on attitude towards online shopping. Also there was found to be significant relationship between e-commerce experience, product perception, customer service and attitude towards online shopping. While no significant relationship was found between customers' risk and attitude towards online shopping.

Malhotra and Chauhan (2015<sup>33</sup>) performed a survey of 170 online customers. The findings revealed that online buying experiences, product perception, safety of payment and customer service have significant effect on attitude towards online shopping. Also, the online customers mainly purchase items like books, clothes, mobiles, home appliances. Hectic schedules and working lifestyles lead people to prefer online shopping.

A case study from Thailand is given by Jiradilok et al (2014<sup>98</sup>), based on sample of 400 Thai internet users, with equal number of shoppers and non – shoppers with respect to online purchasing. The results showed that the factors affecting the intention to purchase online, for the customers who had shopped online at least once in their lifetime, considered assurance, empathy, appropriate, pricing and website information quality. While for those shoppers who had never purchased online, considered factors were empathy, assurance, responsibility, reliability.

A students based research study was carried out by Pratminingsih et al (2013<sup>96</sup>). In this study responses from 300 students were collected and the findings showed that trust, satisfaction and commitment have impact on student loyalty towards online shopping. The more trust, the shoppers had in the service provider and the website tools, the greater was their tendency to re-purchase and so the greater loyalty of the online shoppers.

In Iran Javadi et al (2012<sup>56</sup>), collected data from 200 customers from online stores. It was found that financial risk and non delivery risk negatively affected customers' attitude towards online shopping while innovativeness and subjective norms positively affected the attitude towards online shopping.

In the research survey in Pune region by Walke (2015<sup>85</sup>), on 80 online shoppers, it was

found that amid the growing awareness of internet and online purchase, customers are satisfied with product quality, pricing, delivery, security, customer care services but dissatisfied with poor internet infrastructure, defective product replacement, money back guarantee. Still the trend shows the great scope for online shopping in the coming time.

In Tirupattur, Hariharan and Selvakumar (2018<sup>84</sup>) studied level and problems faced by online customers during shopping online and it states that majority of the customers perceived positively and were very much satisfied in online shopping.

In this research paper by Qin (2007<sup>74</sup>), the Expectation Disconfirmation Model (EDM), has been extended with factors such as perceived risk, trust and online shopping enjoyment. A survey was conducted on 863 registered users with 179 online shopping customers in three websites. The result revealed that trust and shopping enjoyment are motivators for continued online shopping, though joy of shopping has a lesser effect than trust and satisfaction. Perceived risk has a greater effect than perceived usefulness on consumer satisfaction.

A conceptual study by Eishaghi and Zadeh (2015<sup>106</sup>), focused on expectations and satisfaction among online customers. The expectation factors considered here are customer service, security and privacy, website design, fulfillment and reliability, perceived trust and risk.

Joshi and Upadhyay (2013<sup>72</sup>), conducted a survey of 1327 online shoppers in Delhi NCR, Chandigarh and Lucknow. In this study about 80% respondents were aged below 30 years and 65% of respondents were male. They ranked the e-retailers in decreasing order of shopping as Flipkart, Jabong, Myntra, Snapdeal, Amazon. Online shopping trend is increasing because of three main reasons like convenience, availability of range of products and lower prices, in addition to discounts, attractive ads, high quality products. The problems faced by customers were reported to be delay in delivery or even non delivery, products out of stock, problems in reaching the customers' addresses, besides defective products, return, refund, replacement claims, low response by customer care department of the e- retailers.

For a global study about online customers which was carried out by UPS (2015<sup>100</sup>) across four regions and 14 countries with a total of 19485 respondents. The respondents for markets are given as of Asia (5275) (China, Hong Kong, Japan, Singapore, South Korea), Europe (6238), Brazil (1070), Mexico (1053), US (5849). The aspects considered for research for online shoppers and sellers were shopping experience, mobile usage, omni-

channel preferences in shopping. Free shipping is very important factor leading to preference in online shopping as reported country-wise- 70% Asia, 73% Europe, 84% Brazil, 80% Mexico, 81% US. In Asia technology adoption is found to be maximum, followed by Mexico, Brazil then the US and Europe. Abandoning the shopping cart is mostly done by shoppers of US, followed by Europe, Asia, Brazil, Mexico. Among the sales channel preferences, desktop is most widely preferred, followed by physical store and then followed by smartphone, tablet, catalog in different preferences in Asia, US, Mexico, Brazil, Europe markets. Worldwide shoppers i.e. one in four or 24% of their online purchases were made with online retailers outside their own country. Half of them i.e. 12% did online buying with US retailers and other half elsewhere in the world. In US, about 54% shoppers made their purchases with sellers based outside their own country.

A survey of 120 respondents reported from Pakistan by Nazir et al ( 2012<sup>87</sup>), showed that most of respondents were shopping online as low price, comparisons, convenience were preferred factors. But the factors negatively affecting the shoppers were social factors and psychological factors such as insecurity in online transaction and payments.

A research investigation of 104 online shoppers in Norway by Ali and Sankaran (2010<sup>67</sup>), showed that a significant number of Norwegians were satisfied with the online shopping but less than half of them remained loyal to their online sellers. It was found that in the long time period, they could be convinced by the online sellers by providing detailed product information on the websites, superior customer service, quality and timely delivery of goods and effective website designs.

In one interview based research in South Africa by Swardt (2008<sup>52</sup>), the researcher took face to face interview for 45 – 60 minutes of each of 8 respondents. The results showed that the respondents perceived the main advantages as time saving, convenience of products' availability and accessibility and being able to make price comparisons easily. The main disadvantages perceived were not to be able to touch and feel the products and also the absence of salespersons.

E-commerce in India: An overview

## **2.10 Research Gaps**

The present literature survey on online shopping is an attempt to study significant findings and investigations in the research and development of the online marketing industry. The research reviews given in this chapter have revealed the evolution of online marketing in

India and across the globe. It was found in these researches that various variables involved in online shopping differed widely across the world according to the cultures, attitudes, economic status and geography etc. of the people.

It was explored in various research reviews that several researches have been done across the globe (Lee and Lin (2005)<sup>31</sup>) to study the perceptions of customers towards online shopping and separate researches to study customers' expectations towards online shopping. In India, in the states of Tamil Nadu (A. Lakshmanan, (2017<sup>3</sup>)) and Rajasthan (Gupta and Khincha (2015<sup>21</sup>)), research studies have been carried out to study expectations and perceptions of shoppers towards online shopping. In the research analysis given by A. Lakshmanan, the effects of the factors like responsiveness, credibility, accessibility, reliability, convenience and ordering services, communication factors, competence, courtesy and personalization, security and privacy factors were considered for studying the expectations and perceptions of online customers in Tamil Nadu. In the research study carried out in Rajasthan (Gupta and Khincha) the factors considered to study the expectations and perceptions of online shoppers were: promised services, timely services, unable to find desired merchandise, error free, immediate handling of customer complaints, sufficient product knowledge on websites, unreliable payment methods on websites, convenient exchange process on websites.

The literature survey in this study has revealed the following points:

- Although there are many researches carried out in this field but the various factors affecting online buyers' expectations and perceptions have not been investigated in sufficient details.
- In Gujarat, a leading state in business and enterprises, the gap between online shoppers' expectations and perceptions is not completely identified.

**CHAPTER 3**  
**RESEARCH METHODOLOGY**

# CHAPTER 3

## Research Methodology

### 3.1 Introduction

Research methodology is the main foundation for a research project. Research methodology involves the steps of identifying a research problem, defining the research problem and research objectives, formulating a research design accordingly, sampling design, formulating the questionnaire, collecting data, analyzing the data, studying and understanding the findings of the analysis and obtaining meaningful relevant results from the analysis, which can be used in making decisions regarding the possible solutions of the research problem. Thus it is important for a researcher to explicitly lay down the research methodology for any intended research. Research methodology adopted depends on the research goals, the target population, the decisions to be taken from the research. The present chapter focuses on the research methodology used in this research study. The present research is about expectations and perceptions towards online shopping of the online shoppers in the state of Gujarat. Based on the research objectives, the study consists of two main parts, one part focuses on the expectations and perceptions of online shoppers and the other part involves studying the effect of demographic factors on the perceptions towards online shopping. In the research study, the responses were collected from the online shoppers in the state of Gujarat as it was to find if their perceptions towards online shopping met their expectations towards online shopping.

### 3.2 Problem statement and objectives of the study

#### 3.2.1 Problem statement

- There is a growing importance of digital payment, internet usage, e purchasing. Despite the promotion and efforts of government and organizations, people do not rely as much on online shopping as much as on physical stores. There is much scope for development of online shopping in Gujarat.
- There is a need to identify and understand the gaps between expectations and perceptions of the online shoppers of Gujarat in terms of factors of online shopping, for

finding solutions for more satisfactory customer experience and growth of online market and industry.

### **3.2.2 Objectives of the study**

The objectives of the research study are as follows:

1. To understand the determinant factors of perception of online shoppers towards online shopping.
2. To understand the effect of demographic factors (education, income, occupation) on determinants of perception.
3. To find if perceptions of online shopping meet the expectations.

### **3.3 Research Design**

A research design consists of plan and the basic outline conceived so as to observe a phenomenon and obtain answers to research. The plan is an outline of research scheme on which the researcher has to work and it explains the methods and source to be used in the collection and analysis of data. A research design is the blueprint for collecting, measuring and analyzing the data.

Descriptive research involves investigation for finding facts and the description and interpretation of the facts. In this study, descriptive research has been utilized. The sources for data collection are primary data source as well as secondary data source. Primary data source includes the use of questionnaire which is discussed in the sections that follow in the research study. Secondary data sources for data collection and understanding were journals, magazines, reference books, annual reports, websites, internet. The present research study is to find if the perceptions towards online shopping of the online shoppers of Gujarat meet their expectations towards it, in terms of twenty-one factors which are various aspects of online shopping. Also, this research study aims to understand if demographic factors of education, income and occupation have impact on the determinant factors of perception. Hence, the responses are collected from online shoppers from the five major cities of Gujarat state.

### **3.4 Sampling**

Sampling involves adopting a method to obtain a sample from the given population.

### **3.4.1 Sampling Technique**

The sampling techniques can be mainly classified into two main groups: probability sampling techniques and non-probability sampling techniques. In the present research study, non-probability type convenience sampling technique is performed. In convenience sampling, the researcher draws response data from the respondents chosen as per the researcher's convenience.

### **3.4.2 Universe**

In the present study, all the online shoppers in the world, are regarded as the universe.

### **3.4.3 The population**

A research population is the collection of individuals or objects known to have similar characteristics and one or more common characteristic or trait. Observations are made for the population to study or understand concepts or for new finding for a research. The present study is regarding expectations and perceptions of online shoppers in Gujarat, hence all the online shoppers in the state of Gujarat are considered as the population for this research study.

### **3.4.4 Sampling unit**

A sampling unit is the individual or object, taken from the population, for the purpose of research. The data is collected for the sampling unit. In the present study, the online shoppers in the state of Gujarat are regarded sampling unit.

### **3.4.5 Sample size**

A total sample size of 500 online shoppers in the state of Gujarat is considered in the present study. For this, five main cities of Gujarat were selected. The sample size of 100 was considered for each city.

The select cities and sample size of each are given in the following table.

**TABLE 3.1 City and sample size**

<b>City</b>	<b>Sample size</b>
Ahmedabad	100
Surat	100
Vadodara	100
Rajkot	100
Anand	100

Source: Primary Data Analysis

### **3.5 Data Collection**

In this research study, primary and secondary sources of data have been utilized.

#### **3.5.1 Primary data source**

A structured questionnaire was prepared and response data was collected by distributing the questionnaire among the online shoppers in select cities of Gujarat, namely, Ahmedabad, Surat, Vadodara, Rajkot and Anand. The respondents had researcher availability so that their query could be answered immediately. On collecting the response data, it was found that a few of the questionnaires were not filled completely. Such questionnaires were not considered and new questionnaires in its place were collected from the respective cities.

#### **3.5.2 Secondary data source**

The secondary data and information was collected from reports, journals, published articles, newspapers, websites, books, magazines, references.

### **3.6 Research Tool**

In the present research study, primary data collection was very important, a questionnaire was used as research tool. The details of the questionnaire are presented as follows.

### 3.6.1 Questionnaire details

The questionnaire was used for data collection. The questionnaire was prepared based on the objectives the research aims to find and understand, on opinion of expert and on study of literature. Pilot testing of the questionnaire was carried out. Some drawbacks were found, hence, after eliminating the drawbacks, simplifying the questionnaire, the final questionnaire was prepared and administered. the questionnaire consists of eight questions, each question of the questionnaire is explained with its objective, as follows:

[1] First question asks the name and contact number of the respondents

The purpose of this question is identification of the respondents or the units in the sample.

[2] Second question enquires if the respondent purchases online or not.

As the sampling unit in the research study is online shoppers in Gujarat, this question is to identify if the respondent is an online shopper and can be considered in the sample for the research study. If the response of the respondent is yes, their response data is considered in sample for the research. Also, this question aims to get the interest of the respondents to share their preferences and opinions while shopping online and fill it up in the following questions of the questionnaire.

[3] Third question asks the respondents to mention their preferred mode of payment while shopping online. This question is to know / gain insight into online shoppers' preferences and trends in the present scenario. This question also arises interest of the online shoppers towards sharing their shopping preferences in the questionnaire. It is a multiple choice single response type question. There are five options given and the respondent can choose and mark any one option as an answer. The five options are given as presented: (i) Cash on delivery of item (ii) Credit card (iii) Debit card (iv) Internet banking (v) Others, please specify

Fourth and fifth questions ask the respondents about their expectations and perceptions with respect to the twenty one factors of online shopping.

[4] Fourth question contains 21 features or factors of online shopping and the respondents can select a number ranging from one to five in the given Likert scale, to reveal the extent to which they agree that the feature should be available or present while shopping online (Expectation). In the Likert scale given in the questionnaire, one represents strongly disagree while five represents strongly agree.

[5] Fifth question contains 21 features or factors of online shopping and the respondents

can select a number ranging from one to five in the given Likert scale, to reveal the extent to which they agree that the feature was available or experienced while shopping online (Perception). In the Likert scale given in the questionnaire, one represents strongly disagree while five represents strongly agree.

The questions four and five, aim towards achieving the research objective which is to find if online shoppers' perceptions of online shopping meet their expectations.

From the response data collected of this question, the difference between the means of expectation and perception, for each of the twenty one features of online shopping is computed. It is identified from the results obtained, the features of online shopping for which expectations are greater than the perceptions. This leads to identify gaps present in online shopping with reference to opinions and responses of online shoppers in the state of Gujarat. Identifying the gaps reveals the scope in areas of online shopping in which the online marketers can improvise according to the shoppers' requirements.

[6] One of the research objectives is to understand the effect of demographic factors, education, income, occupation on the determinant factors of perception towards online shopping. The sixth question is towards fulfilling this research objective as this question asks about the education of the respondents. It is a multiple choice single response type question. This question includes personal information as the respondents are asked to select their education level from the three given options of under graduate, graduate and post graduate. Hence from the response data collected from this question, in the research the effect of education on factors of perception is studied.

[7] Seventh question serves to know the occupation of the respondents and thereby aims towards achieving the research objective to understand the effect of occupation of online shoppers on the perception determinants of online shopping. It is a multiple choice single response type question and covers personal information. As their answer, the respondents are asked to reveal their occupation by selecting any one option from the following five options: Business, Service, Student, Housewife, Professional

From the response data collected from this question, in the research the effect of occupation on factors of perception is studied.

[8] Eighth question asks the respondent about their annual family income. This is a personal information and a sensitive issue, hence this part is placed last in the questionnaire. This question is towards achieving the research objective to understand the effect of income on determinant factors of perception of online shopping. It is a multiple

choice single response type question. The respondents are asked to select one option from the following four options which have Rupee figures in lakhs per annum: Two to five, Five to Eight, Eight to Eleven, Above Eleven.

From the response data collected from this question, in the research the effect of income on factors of perception is studied.

The questionnaire is given in Annexure

### **3.7 Data Analysis Techniques**

Data analysis is a process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information, informing conclusions and supporting decision-making. (W) Therefore in a research, the process of data analysis involves collection of raw data, cleaning, transformation and analysis of the data which gives findings and information which is useful for decision making with reference to the research. Hence raw data obtained from questionnaire cannot be used unless it is processed and transformed to make it suitable for performing data analysis and obtain relevant findings and results.

Hence in the present research study, for the data collected from 500 respondents, different data analysis techniques were used for different questions of the questionnaire to transform into format suitable for analyzing and obtaining relevant results. The decision for the type of data analysis technique to be used depends on the factors like (i) research objectives (ii) the scales and characteristics of data. The data analysis techniques used in the research study are briefly described in the following section. Detailed explanation of the techniques has been done in Chapter - .

There are various techniques of data analysis available. The broad classification of data analysis techniques into three categories is:

- Univariate, which is for one variable at a time.
- Bivariate which involves two variables at a time and
- Multivariate which is for three or more variables simultaneously.

#### **3.7.1 Univariate techniques**

Univariate analysis is the simplest form of data analysis where the data being analyzed contains only one variable. ([www.modernanalyst.com](http://www.modernanalyst.com)) The main purpose of univariate analysis is to describe the data and find patterns that exist within it. Univariate analysis would not look at two variables at the same time, nor would it look at the relationship

between them. Patterns found in univariate data can be described by looking at mean, mode, median, range, variance, maximum, minimum, quartiles, and standard deviation. Also, some ways to display univariate data include frequency distribution tables, bar charts, histograms, frequency polygons, and pie charts. In the present research study, use of statistics including mean, median, mode, skewness, kurtosis, variance and standard deviations of the data was performed to find the central tendency and variance of the data.

### **3.7.2 Bivariate techniques**

Bivariate analysis is used to find out if there is a relationship between two different variables. This analysis is performed when the researcher wants to analyse two variables at the same time. In bivariate analysis, a scatterplot can be created by plotting one variable against another on a Cartesian plane (having X and Y axis) to reveal the information obtained from the data. If the data seems to fit a line or curve then there is a relationship or correlation between the two variables. Chi-square contingency test, cross tabulation, least significant difference multiple comparison test are bivariate techniques used in this research study.

### **3.7.3 Multivariate techniques**

Multivariate analysis is the analysis of three or more variables. There are many ways to perform multivariate analysis depending on the research objectives. Some of these methods include Cluster Analysis, Factor Analysis, Multiple Regression Analysis, Principal Component Analysis. In the present research study, factor analysis technique was used. From the use of factor analysis, five factors were identified. Factors enable to explain the correlations among a set of variables.

**CHAPTER 4**  
**DATA ANALYSIS AND**  
**INTERPRETATION**

# CHAPTER 4

## Data Analysis And Interpretation

### 4.1 Introduction

In order to obtain useful and relevant information from the collected raw data, transforming and analyzing the data is required. The present chapter consists of the analysis and interpretation of the primary data and the collected information. Data analysis was carried out using SPSS statistical package. Different statistical tests and measures such as frequency, percentages, central tendency, etc. were performed on the data. The tables and graphs presented in this chapter are on the basis of results obtained from primary data analysis. On the basis of these tests and outputs, the interpretations, findings and conclusion are drawn.

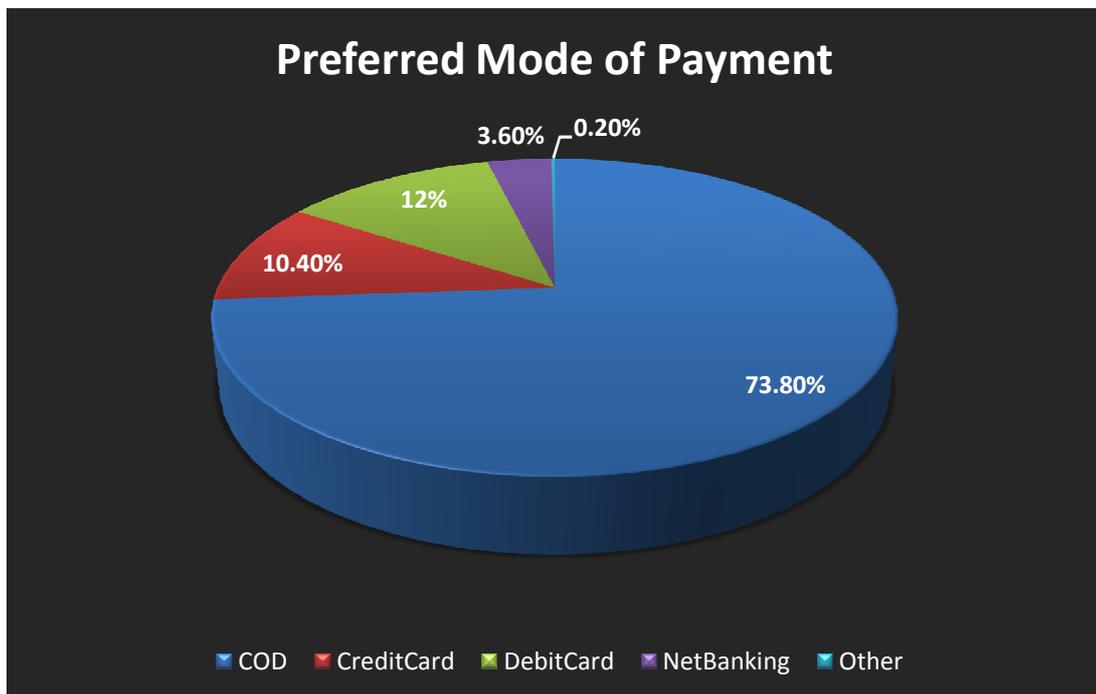
### 4.2 Frequency Distribution Analysis

#### 4.2.1 Preferred Mode of Payment

A total of 500 filled up questionnaires of online shoppers were collected from the survey. From 500, 73.8% of the respondents, that is, 369 respondents preferred to make payment for their online shopping through the mode of cash on delivery. This was followed by debit card as the preferred mode of payment by 12 % of respondents. 10.40% of respondents preferred to pay for their online shopping through credit card while 3.6% preferred to pay via internet banking. 0.20% of respondents preferred to pay though other means such as digital apps, for their online shopping. The data for the preferred mode of payment by online shoppers in Gujarat, is presented in the following Table 4.1 and also in the Fig. 4.1.

**TABLE 4.1: Preferred mode of payment of online shoppers**

<b>Preferred mode of payment</b>	<b>Frequency</b>	<b>Percentage</b>
Cash on delivery	369	73.80
Credit card	52	10.40
Debit card	60	12.00
Internet banking	18	3.60
Other	1	0.20
Total	500	100.00



**FIGURE 4.1: Preferred mode of payment of online shoppers**

#### **4.2.2 Level of agreeing of online shoppers with respect to their perception of factors of online shopping**

There are several factors and aspects of online shopping which bear importance among the online shoppers. In the present research study, twenty-one factors were considered and the online shoppers' perception towards online shopping in terms of these twenty-one factors was understood by measuring their level of agreeing with each of these factors. The agreeing was measured as per the data given in the following Table 4.2. The level of agreeing observed is also represented in the following Fig. 4.2. Five point Likert scale (1 for strongly disagree to 5 for strongly agree) was used to know the level of agreeing of online shoppers that is, the extent to which the online shoppers agree that each of the considered twenty-one factors were actually perceived or experienced by them while shopping online. From the following table 1, for online shoppers' perception factors, it can be observed that the majority of online shoppers agreed that they perceived and experienced most of the factors while online shopping. The table also shows that the majority of online shoppers strongly agree with perceiving the factors anytime and place

and good discounts and prices while online shopping, with the respective percentage of online shoppers for these factors being 27% and 24%. These factors were followed by 23.4% of online shoppers strongly agreeing with having perceived time saving and need for greater ease while online shopping. Relatively lower percentage of online shoppers, 7.2%, agreed with having the perception of the factor free from fraud, followed by 8.4% of online shoppers agreeing for having the perception of the factor product received as ordered.

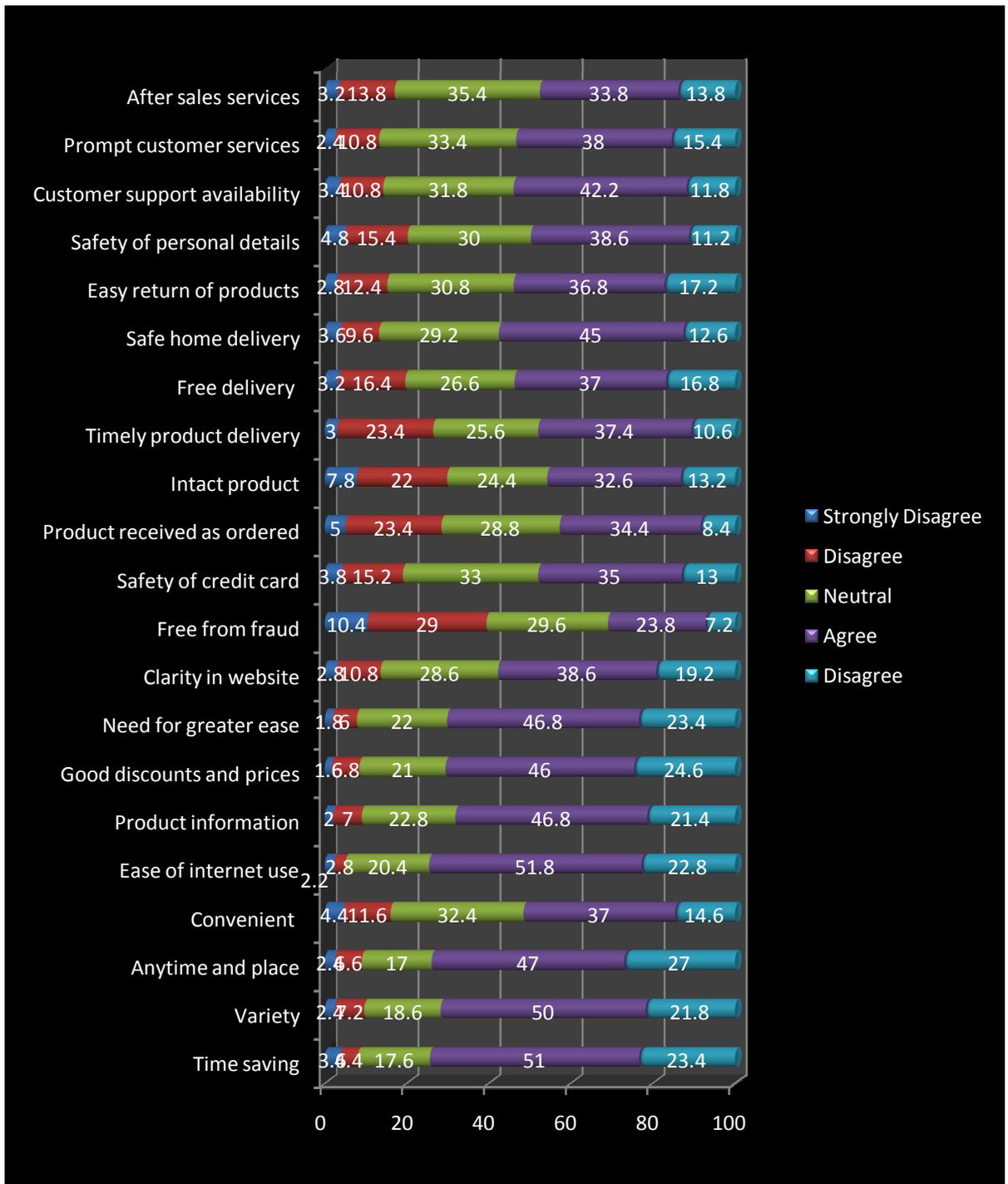
#### **4.2.3 Level of agreeing of online shoppers with respect to their expectation of factors of online shopping**

In order to know the level of agreeing of online shoppers with respect to their expectations from online shopping in terms of the considered twenty-one factors of online shopping, five point Likert scale with the continuum from 1 – strongly disagreed to 5 – strongly agreed, was used. The response data regarding the agreeing level in terms of both, the number of online shoppers and percentage of online shoppers is presented in the following Table 4.3 and Figure 4.3. The Table 4.3 shows that the majority of online shoppers strongly agree with having higher expectation regarding the factors time saving and anytime and place while online shopping, with the respective percentage of online shoppers for these factors being 34.2% and 33.8%. These factors were followed by 32.4% of online shoppers strongly agreeing with having higher expectation about having variety while online shopping. Relatively lower percentage of online shoppers, 12.8% , expect more in terms of convenience from online shopping, followed by 20.6% of online shoppers agreeing for having the expectation for online shopping to be better in terms of being free from fraud. Also, a relatively lower percentage of online shoppers, 23.2% of online shoppers expect more from online shopping in terms of timely product delivery.

**TABLE 4.2: Level of agreeing of online shoppers with respect to their perception of factors of online shopping**

Sr. No.	Factors	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
1	Time saving	<b>18</b>	3.6	<b>22</b>	4.4	<b>88</b>	17.6	<b>255</b>	51	<b>117</b>	23.4
2	Variety	<b>12</b>	2.4	<b>36</b>	7.2	<b>93</b>	18.6	<b>250</b>	50	<b>109</b>	21.8
3	Anytime and place	<b>12</b>	2.4	<b>33</b>	6.6	<b>85</b>	17	<b>235</b>	47	<b>135</b>	27
4	Convenient	<b>22</b>	4.4	<b>58</b>	11.6	<b>162</b>	32.4	<b>185</b>	37	<b>73</b>	14.6
5	Ease of internet use	<b>11</b>	2.2	<b>14</b>	2.8	<b>102</b>	20.4	<b>259</b>	51.8	<b>114</b>	22.8
6	Product information	<b>10</b>	2	<b>35</b>	7	<b>114</b>	22.8	<b>234</b>	46.8	<b>107</b>	21.4
7	Good discounts and prices	<b>8</b>	1.6	<b>34</b>	6.8	<b>105</b>	21	<b>230</b>	46	<b>123</b>	24.6
8	Need for greater ease	<b>9</b>	1.8	<b>30</b>	6	<b>110</b>	22	<b>234</b>	46.8	<b>117</b>	23.4
9	Clarity in website	<b>14</b>	2.8	<b>54</b>	10.8	<b>143</b>	28.6	<b>193</b>	38.6	<b>96</b>	19.2
10	Free from fraud	<b>52</b>	10.4	<b>145</b>	29	<b>148</b>	29.6	<b>119</b>	23.8	<b>36</b>	7.2
11	Safety of credit card	<b>19</b>	3.8	<b>76</b>	15.2	<b>165</b>	33	<b>175</b>	35	<b>65</b>	13
12	Product received as ordered	<b>25</b>	5	<b>117</b>	23.4	<b>144</b>	28.8	<b>172</b>	34.4	<b>42</b>	8.4

13	Intact product	<b>39</b>	7.8	<b>110</b>	22	<b>122</b>	24.4	<b>163</b>	32.6	<b>66</b>	13.2
14	Timely product delivery	<b>15</b>	3	<b>117</b>	23.4	<b>128</b>	25.6	<b>187</b>	37.4	<b>53</b>	10.6
15	Free delivery	<b>16</b>	3.2	<b>82</b>	16.4	<b>133</b>	26.6	<b>185</b>	37	<b>84</b>	16.8
16	Safe home delivery	<b>18</b>	3.6	<b>48</b>	9.6	<b>146</b>	29.2	<b>225</b>	45	<b>63</b>	12.6
17	Easy return of products	<b>14</b>	2.8	<b>62</b>	12.4	<b>154</b>	30.8	<b>184</b>	36.8	<b>86</b>	17.2
18	Safety of personal details	<b>24</b>	4.8	<b>77</b>	15.4	<b>150</b>	30	<b>193</b>	38.6	<b>56</b>	11.2
19	Customer support availability	<b>17</b>	3.4	<b>54</b>	10.8	<b>159</b>	31.8	<b>211</b>	42.2	<b>59</b>	11.8
20	Prompt customer services	<b>12</b>	2.4	<b>54</b>	10.8	<b>167</b>	33.4	<b>190</b>	38	<b>77</b>	15.4
21	After sales services	<b>16</b>	3.2	<b>69</b>	13.8	<b>177</b>	35.4	<b>169</b>	33.8	<b>69</b>	13.8

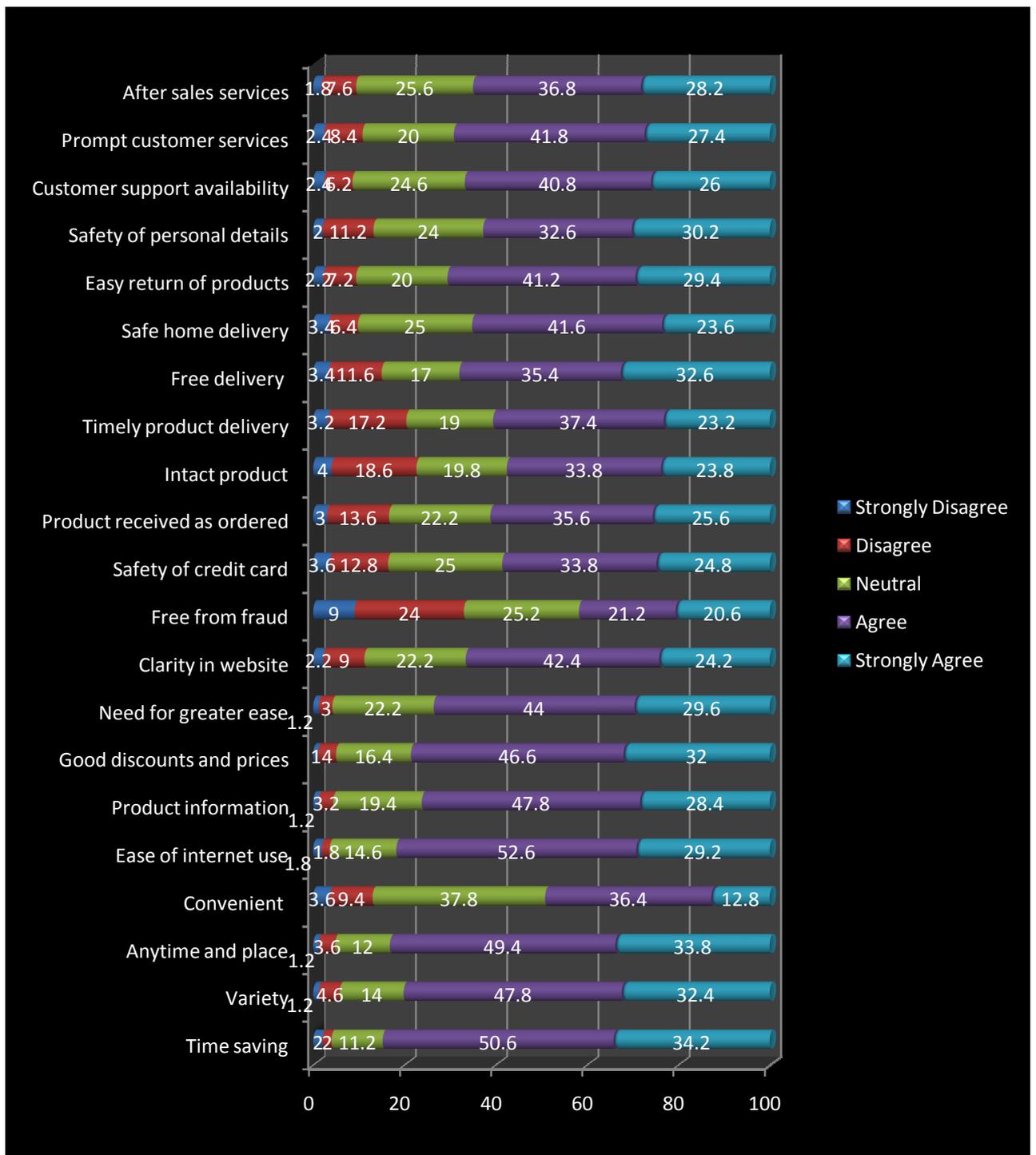


**FIGURE 4.2: Customers' agreeing level with respect to perception factors of online shopping.**

**TABLE 4.3: Level of agreeing of online shoppers with respect to their expectation of factors of online shopping**

Sr. No.	Factors	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
1	Time saving	10	2	10	2	56	11.2	253	50.6	171	34.2
2	Variety	6	1.2	23	4.6	70	14	239	47.8	162	32.4
3	Anytime and place	6	1.2	18	3.6	60	12	247	49.4	169	33.8
4	Convenient	18	3.6	47	9.4	189	37.8	182	36.4	64	12.8
5	Ease of internet use	9	1.8	9	1.8	73	14.6	263	52.6	146	29.2
6	Product information	6	1.2	16	3.2	97	19.4	239	47.8	142	28.4
7	Good discounts and prices	5	1	20	4	82	16.4	233	46.6	160	32
8	Need for greater ease	6	1.2	15	3	111	22.2	220	44	148	29.6
9	Clarity in website	11	2.2	45	9	111	22.2	212	42.4	121	24.2
10	Free from fraud	45	9	120	24	126	25.2	106	21.2	103	20.6
11	Safety of credit card	18	3.6	64	12.8	125	25	169	33.8	124	24.8
12	Product received as ordered	15	3	68	13.6	111	22.2	178	35.6	128	25.6

13	Intact product	<b>20</b>	4	<b>93</b>	18.6	<b>99</b>	19.8	<b>169</b>	33.8	<b>119</b>	23.8
14	Timely product delivery	<b>16</b>	3.2	<b>86</b>	17.2	<b>95</b>	19	<b>187</b>	37.4	<b>116</b>	23.2
15	Free delivery	<b>17</b>	3.4	<b>58</b>	11.6	<b>85</b>	17	<b>177</b>	35.4	<b>163</b>	32.6
16	Safe home delivery	<b>17</b>	3.4	<b>32</b>	6.4	<b>125</b>	25	<b>208</b>	41.6	<b>118</b>	23.6
17	Easy return of products	<b>11</b>	2.2	<b>36</b>	7.2	<b>100</b>	20	<b>206</b>	41.2	<b>147</b>	29.4
18	Safety of personal details	<b>10</b>	2	<b>56</b>	11.2	<b>120</b>	24	<b>163</b>	32.6	<b>151</b>	30.2
19	Customer support availability	<b>12</b>	2.4	<b>31</b>	6.2	<b>123</b>	24.6	<b>204</b>	40.8	<b>130</b>	26
20	Prompt customer services	<b>12</b>	2.4	<b>42</b>	8.4	<b>100</b>	20	<b>209</b>	41.8	<b>137</b>	27.4
21	After sales services	<b>9</b>	1.8	<b>38</b>	7.6	<b>128</b>	25.6	<b>184</b>	36.8	<b>141</b>	28.2



**FIGURE 4.3: Customers' agreeing level with respect to expectation factors of online shopping.**

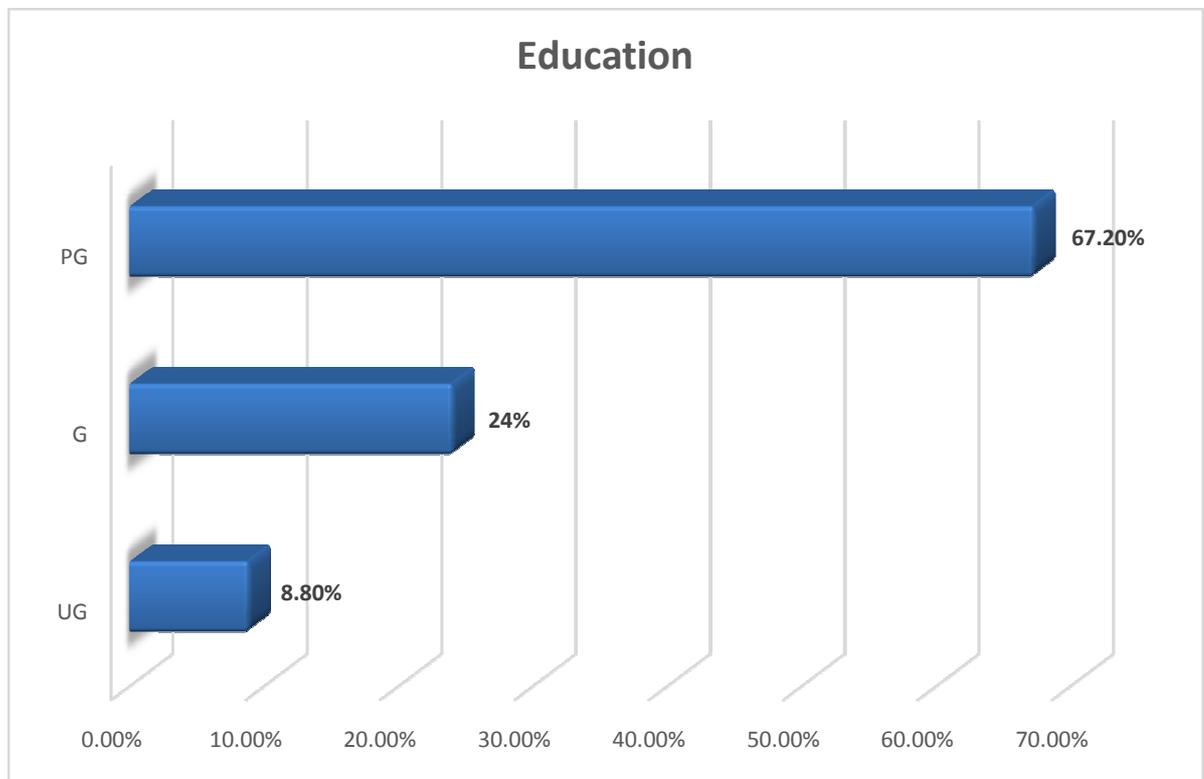
#### 4.2.4 Demographic factors of respondents

##### (i) Education

Respondents are categorized on the basis of their education level, as presented in Table 4.4 and Fig. 4.4. Maximum number of respondents is 336, which is in the category of post graduate (PG) education level, followed by 120 graduates and the minimum number being 44, of undergraduates. From this, it can be said that maximum online shoppers were from the group having post graduation and relatively very less number of respondents fall in the undergraduate education level category.

**TABLE 4.4: Education level of respondents**

Education Level	Frequency	Percentage
Undergraduate (UG)	44	8.80
Graduate (G)	120	24.00
Post graduate (PG)	336	67.20
Total	500	100.00



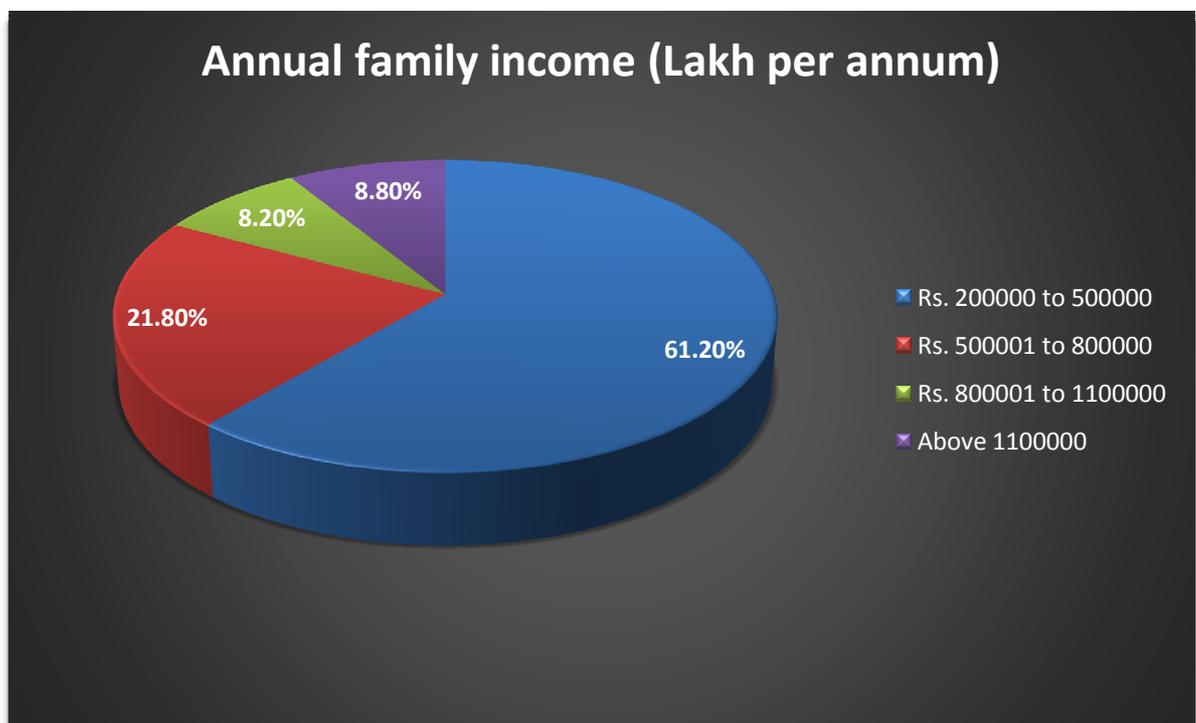
**FIGURE 4.4 Education level of respondents (Percentage of respondents)**

**(ii) Annual family income**

On the basis of annual family income, the respondents are categorized as presented in the given Table 4.5 and Fig. 4.5. Majority of the respondents, 306, are in the category of Rs. 200000 to Rs. 500000, followed by 109 respondents in the category of Rs. 500001 to Rs. 800000. Hence, from this, it is found that majority of online shoppers are in the lower middle and the middle income groups. Comparatively, lesser number of respondents fall in the higher middle income group.

**TABLE 4.5 Annual family income of respondents**

Family income level per annum	Frequency	Percentage
Rs. 200000 to 500000	306	61.20
Rs. 500001 to 800000	109	21.80
Rs. 800001 to 1100000	41	8.20
Above 1100000	44	8.80
Total	500	100.00



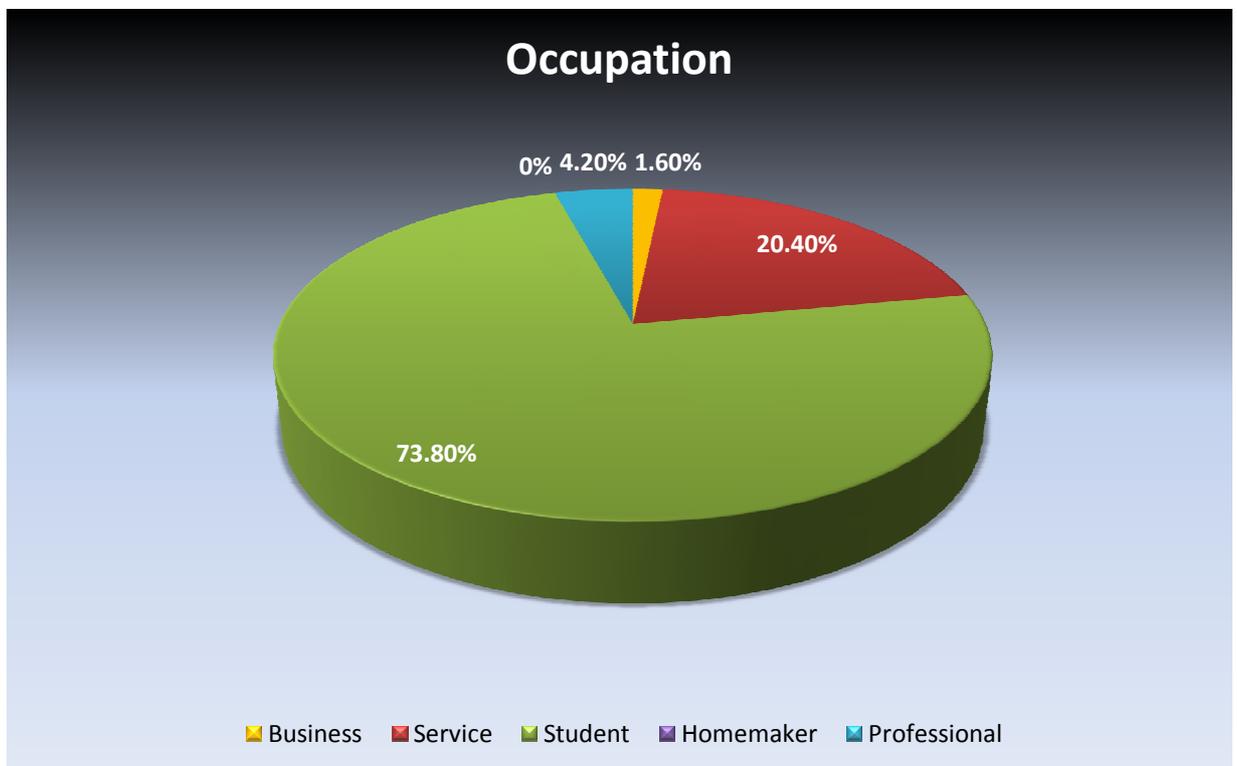
**FIGURE 4.5 Annual family income of respondents (Percentage of respondents)**

**(iv) Occupation**

Occupation wise categorization of the respondents is as represented in Table 4.6 and Fig. 4.6. From the data, it is observed that majority of the online shoppers are students as 73% which is 369 out of 500 respondents are students. This is followed by 102 respondents from the category of service group. Hence, online shopping is observed as mainly done by students and members of the service group.

**TABLE 4.6 Occupation of respondents**

Occupation	Frequency	Percentage
Business	8	1.60
Service	102	20.40
Student	369	73.80
Homemaker	0	0.00
Professional	21	4.20
Total	500	100.00



**FIGURE 4.6 Occupation of respondents (Percentage of respondents)**

### 4.3 Cross Tabulation and Statistical tests

In this section, hypothesis testing is performed.

Cross tabulation is performed for the simultaneous analysis of two variables. (Pandya, 2010<sup>44</sup>)

#### 4.3.1 Association between education of the online shoppers and the determinants of perception towards online shopping

The association between education of online shoppers and the time saving and free product delivery determinants of perception was checked and tested using cross tabulation and chi-square test. Cross tabulation of the education level of respondents and the time saving determinant of perception towards online shopping is performed and presented in the Table 4.7.

In the computed table, the three levels of education are undergraduate (UG), graduate (G) and post graduate (PG). As observed in the table, the time saving determinant or factor, consists of five point Likert scale with continuum ranging from 1 as strongly disagree to 5 as strongly agree, to represent online shoppers' agreement level for their perception of time saving while shopping online.

**TABLE 4.7: Education and the time saving determinant of perception**

			Time saving					
			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
<b>Education</b>	<b>UG</b>	<b>Count</b>	5	7	5	19	8	44
		<b>Expected Count</b>	1.6	1.9	7.7	22.4	10.3	44
	<b>G</b>	<b>Count</b>	4	3	23	65	25	120
		<b>Expected Count</b>	4.3	5.3	21.1	61.2	28.1	120
	<b>PG</b>	<b>Count</b>	9	12	60	171	84	336
		<b>Expected Count</b>	12.1	14.8	59.1	171.4	78.6	336
<b>Total</b>		<b>Count</b>	18	22	88	255	117	500
		<b>Expected Count</b>	18	22	88	255	117	500

3 cells (20%) have expected count less than 5. The minimum expected count is 1.6

The data shows that for all the levels of education, maximum number of online shoppers agree with having the perception of time saving while shopping online.

For the data in the above output table obtained for Cross tabulation, by the rule of thumb, for degree of freedom greater than 1, not more than 20% of the cells should have expected frequencies of less than 5. If this criteria is not met, the researcher is required to combine the cells until it conforms to this rule, but only if the combination does not render the data meaningless. In the table for this data, as is observed, out of total 15 cells, 3 cells, which means 20% of the cells, have expected frequency of less than 5. Thus, the thumb rule is followed in the above cross tabulation computation. In order to check the association between these two variables statistically, Chi-square test is performed in the following section.

Similar to the above computation, the data concerning education level of respondents and the free delivery determinant or factor of perception towards online shopping is given in the following Table 4.8. The three levels of education are undergraduate (UG), graduate (G) and post graduate (PG). In the table, the free delivery factor, consists of five point Likert scale with continuum ranging from 1 as strongly disagree to 5 as strongly agree, to represent online shoppers' agreement level for their perception of free delivery of product while shopping online.

**TABLE 4.8: Education and the free delivery determinant of perception**

			<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Total</b>
<b>Education</b>	<b>UG</b>	<b>Count</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>23</b>	<b>8</b>	<b>44</b>
		<b>Expected Count</b>	<b>1.4</b>	<b>7.2</b>	<b>11.7</b>	<b>16.3</b>	<b>7.4</b>	<b>44</b>
	<b>G</b>	<b>Count</b>	<b>4</b>	<b>17</b>	<b>36</b>	<b>49</b>	<b>13</b>	<b>119</b>
		<b>Expected Count</b>	<b>3.8</b>	<b>19.5</b>	<b>31.7</b>	<b>44</b>	<b>20</b>	<b>119</b>
	<b>PG</b>	<b>Count</b>	<b>9</b>	<b>60</b>	<b>92</b>	<b>113</b>	<b>63</b>	<b>337</b>
		<b>Expected Count</b>	<b>10.8</b>	<b>55.3</b>	<b>89.6</b>	<b>124.7</b>	<b>56.6</b>	<b>337</b>
<b>Total</b>		<b>Count</b>	<b>16</b>	<b>82</b>	<b>133</b>	<b>185</b>	<b>84</b>	<b>500</b>
		<b>Expected Count</b>	<b>16</b>	<b>82</b>	<b>133</b>	<b>185</b>	<b>84</b>	<b>500</b>

2 cells (13.33%) have expected count less than 5. The minimum expected count is 1.4

The data in the table shows that for all the levels of education, maximum number of online shoppers agree with having the perception of free delivery while shopping online.

In the table for the above data, it is observed that out of total 15 cells, 2 cells, which means 13.33% of the cells, have expected frequency of less than 5. Hence, the above cross tabulation complies with the thumb rule. In order to check the association between these two variables statistically, Chi-square test is performed in the following section.

The hypothesis for the data in the Table 4.7 and Table 4.8 for Chi-square test to understand the impact of education on the determinants of perception towards online shopping is as given under:

$H_0$ : There is no impact of education of the online shoppers on the determinants of perception towards online shopping.

$H_a$ : There is impact of education of the online shoppers on the determinants of perception towards online shopping.

Here,  $H_0$  represents null hypothesis and  $H_a$  represents the alternative hypothesis.

The Chi-square test is performed at 5% level of significance and 8 degrees of freedom. The output of Chi-square test for time saving determinant towards online shopping is presented in the following Table 4.9.

**TABLE 4.9: Chi-square test for time saving**

	<b>Value</b>	<b>df</b>	<b>Asymptotic Significance (2-sided)</b>
<b>Pearson Chi-Square</b>	26.071(a)	8	0.001
<b>Likelihood Ratio</b>	18.495	8	0.018
<b>Linear-by-Linear Association</b>	8.257	1	0.004
<b>N of Valid Cases</b>	500		

It is observed in the above output table that the Pearson Chi-square significance value is 0.001.

This shows the null hypothesis is rejected and it can be concluded that there is an association between the education of the online shoppers and the time saving determinant

of their perception towards online shopping.

Similarly, the Chi-square test is performed at 5% level of significance and 8 degrees of freedom. The output of Chi-square test for free delivery determinant towards online shopping is presented in the following Table 4.10.

**TABLE 4.10: Chi-square test for free delivery**

	<b>Value</b>	<b>df</b>	<b>Asymptotic Significance (2-sided)</b>
<b>Pearson Chi-Square</b>	15.660(a)	8	0.048
<b>Likelihood Ratio</b>	16.375	8	0.037
<b>Linear-by-Linear Association</b>	0.215	1	0.643
<b>N of Valid Cases</b>	500		

It is observed in the above output table that the Pearson Chi-square significance value is 0.048.

This shows the null hypothesis is rejected and it can be concluded that there is an association between the education of the online shoppers and the free delivery of product determinant of their perception towards online shopping.

Thus, from the above cross tabulation and statistical test it can be concluded that the null hypothesis is rejected and there is impact of education of the online shoppers on the time saving and free delivery determinants of perception towards online shopping.

#### **4.4 One way Analysis of Variance (ANOVA)**

Analysis of variance (ANOVA) is a statistical technique for examining the differences among means for two or more populations. One way ANOVA is an ANOVA technique in which there is only one factor or independent variable. (Malhotra, 2016<sup>60</sup>)

##### **4.4.1 Association between the education of the online shoppers and determinants of perception towards online shopping using ANOVA.**

Here the association is checked by performing ANOVA test at 5% level of significance.

The output obtained in ANOVA test for education and the twenty one determinants of

perception is given in the following table as follows:

**TABLE 4.11 ANOVA for Education**

		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Time saving	Between Groups	10.912	3	3.637	4.151	<b>0.006</b>
	Within Groups	434.566	496	0.876		
	Total	445.478	499			
Variety	Between Groups	0.171	3	0.057	0.065	0.979
	Within Groups	436.901	496	0.881		
	Total	437.072	499			
Anytime and Place	Between Groups	1.968	3	0.656	0.719	0.541
	Within Groups	452.624	496	0.913		
	Total	454.592	499			
Convenient	Between Groups	1.141	3	0.38	0.365	0.778
	Within Groups	516.977	496	1.042		
	Total	518.118	499			
Ease of Internet use	Between Groups	2.136	3	0.712	0.97	0.407
	Within Groups	364.062	496	0.734		
	Total	366.198	499			
Product Information	Between Groups	4.307	3	1.436	1.68	0.17
	Within Groups	423.795	496	0.854		
	Total	428.102	499			
Good Discounts Prices	Between Groups	3.22	3	1.073	1.262	0.287
	Within Groups	421.828	496	0.85		
	Total	425.048	499			
Need for greater ease	Between Groups	3.765	3	1.255	1.513	0.21
	Within Groups	411.435	496	0.83		
	Total	415.2	499			
Clarity in Website	Between Groups	0.769	3	0.256	0.253	0.859
	Within Groups	502.613	496	1.013		
	Total	503.382	499			
Free from fraud	Between Groups	3.239	3	1.08	0.884	0.449
	Within Groups	606.033	496	1.222		

	Total	609.272	499			
Safety of Credit Card	Between Groups	1.856	3	0.619	0.599	0.616
	Within Groups	512.182	496	1.033		
	Total	514.038	499			
Product received as ordered	Between Groups	4.241	3	1.414	1.306	0.272
	Within Groups	536.917	496	1.082		
	Total	541.158	499			
Intact Product	Between Groups	5.427	3	1.809	1.35	0.257
	Within Groups	664.675	496	1.34		
	Total	670.102	499			
Timely Product Delivery	Between Groups	4.521	3	1.507	1.413	0.238
	Within Groups	528.847	496	1.066		
	Total	533.368	499			
Free Delivery	Between Groups	8.865	3	2.955	2.695	<b>0.045</b>
	Within Groups	543.893	496	1.097		
	Total	552.758	499			
Safe Home Delivery	Between Groups	0.987	3	0.329	0.36	0.782
	Within Groups	453.435	496	0.914		
	Total	454.422	499			
Easy return of products	Between Groups	7.064	3	2.355	2.348	0.072
	Within Groups	497.424	496	1.003		
	Total	504.488	499			
Safety of Personal details	Between Groups	0.739	3	0.246	0.233	0.873
	Within Groups	524.461	496	1.057		
	Total	525.2	499			
Customer Support Availability	Between Groups	0.422	3	0.141	0.154	0.927
	Within Groups	452.416	496	0.912		
	Total	452.838	499			
Prompt Customer Services	Between Groups	1.779	3	0.593	0.644	0.587
	Within Groups	456.709	496	0.921		
	Total	458.488	499			
After sales services	Between Groups	6.235	3	2.078	2.117	0.097
	Within Groups	486.893	496	0.982		
	Total	493.128	499			

From the performed ANOVA test, it is observed that the significance values for time saving and free delivery are 0.006 and 0.045 respectively which are less than 0.05. Thus it is concluded that education level of online shoppers has impact on time saving and free delivery determinants of perception and null hypothesis is rejected for these factors.

#### **4.4.2 Association between occupation of the online shoppers and the determinants of perception towards online shopping**

ANOVA test was performed in the statistical software to test the impact of occupation of online shoppers on the determinants of perception towards online shopping. The hypothesis for this is given as follows:

$H_0$  :There is no impact of occupation of the online shoppers on the determinants of perception towards online shopping.

$H_a$  :There is impact of occupation of the online shoppers on the determinants of perception towards online shopping.

ANOVA test is performed at 5% level of significance (confidence level is 95%). In the following ANOVA test in the research study, there are five occupation categories namely, business, service, student, homemaker, professional. The output of the performed test is presented in the following Table 4.12.

**TABLE 4.12: ANOVA table for Occupation**

		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Time Saving</b>	Between Groups	2.639	4	0.66	0.738	0.567
	Within Groups	442.839	495	0.895		
	Total	445.478	499			
<b>Variety</b>	Between Groups	6.032	4	1.508	1.732	0.142
	Within Groups	431.04	495	0.871		
	Total	437.072	499			
<b>Anytime and Place</b>	Between Groups	2.929	4	0.732	0.802	0.524
	Within Groups	451.663	495	0.912		
	Total	454.592	499			
<b>Convenient</b>	Between Groups	5.721	4	1.43	1.382	0.239
	Within Groups	512.397	495	1.035		

	Total	518.118	499			
<b>Ease of Internet use</b>	Between Groups	1.029	4	0.257	0.349	0.845
	Within Groups	365.169	495	0.738		
	Total	366.198	499			
<b>Product Information</b>	Between Groups	5.818	4	1.455	1.705	0.148
	Within Groups	422.284	495	0.853		
	Total	428.102	499			
<b>Good Discounts Prices</b>	Between Groups	8.506	4	2.126	2.527	0.04
	Within Groups	416.542	495	0.841		
	Total	425.048	499			
<b>Need for Greater Ease</b>	Between Groups	4.058	4	1.014	1.221	0.301
	Within Groups	411.142	495	0.831		
	Total	415.2	499			
<b>Clarity in Website</b>	Between Groups	1.175	4	0.294	0.29	0.885
	Within Groups	502.207	495	1.015		
	Total	503.382	499			
<b>Free from Fraud</b>	Between Groups	16.329	4	4.082	3.408	0.009
	Within Groups	592.943	495	1.198		
	Total	609.272	499			
<b>Safety of Credit Card</b>	Between Groups	11.15	4	2.787	2.744	0.028
	Within Groups	502.888	495	1.016		
	Total	514.038	499			
<b>Product Received As Ordered</b>	Between Groups	5.056	4	1.264	1.167	0.324
	Within Groups	536.102	495	1.083		
	Total	541.158	499			

In the above result table for ANOVA for occupation of the respondents, the significance values for each perception determinant or factor of online shopping are given in the last column of the table. From the obtained significance values, it is found that there is impact of occupation on the following perception determinants: good discounts and prices, free from fraud, safety of credit card as the significance values for these factors are less than 0.05. Hence, null hypothesis is rejected for these determinants and it can be concluded that occupation of the online shoppers has impact on the determinants of perception towards online shopping.

## 4.5 Gap analysis (Expectation – Perception) and Paired T Test

### 4.5.1 Gap Analysis (Expectation – Perception)

The mean score for each factor or determinant obtained in the following Table 4.13 is based on the numbers assigned for each type of response. For each of the twenty one factor items in expectation and perception, five point Likert scale was used. Each response consisted of a number from 1 (representing strongly disagree) to 5 (representing strongly agree).

**TABLE 4.13: Mean score of expectation and perception for the factors of online shopping**

<b>Factor pair number</b>	<b>Factors / Determinants</b>	<b>Expectation (Mean score)</b>	<b>Perception (Mean score)</b>	<b>Gap (Expectation - Perception)</b>
1.	Time saving	4.13	3.86	0.27
2.	Variety	4.06	3.82	0.24
3.	Anytime and Place	4.11	3.90	0.21
4.	Convenient	3.45	3.46	-0.01
5.	Ease of Internet Use	4.06	3.90	0.16
6.	Product Information	3.99	3.79	0.20
7.	Good discounts and prices	4.05	3.85	0.20
8.	Need for greater ease	3.98	3.84	0.14
9.	Clarity in website	3.77	3.61	0.16
10.	Free from fraud	3.20	2.88	0.32
11.	Safety of Credit card	3.63	3.38	0.25
12.	Product received as ordered	3.67	3.18	0.49
13.	Intact product	3.55	3.21	0.34
14.	Timely product delivery	3.60	3.29	0.31
15.	Free delivery	3.82	3.48	0.34
16.	Safe home delivery	3.76	3.53	0.23
17.	Easy return of products	3.88	3.53	0.35
18.	Safety of personal details	3.78	3.36	0.42

19.	Customer support availability	3.82	3.48	0.34
20.	Prompt customer services	3.83	3.53	0.30
21.	After sales services	3.82	3.41	0.41

In the above computed table, gap was identified by finding the difference between the means of expectation and perception, for each of the twenty one factors. Negative gap value was found to be present for the convenient factor of online shopping. This negative score shows that for the convenient factor, the perception of the online shoppers is greater than their expectation. This shows that the online shoppers agree that their experience or perception of convenience in online shopping is greater than their expectation about convenience while shopping online. All other twenty factors have positive gap, which means the expectations of the online shoppers in terms of these twenty factors are greater than their perceptions of it. The highest positive gap is for the factor, product received as ordered, which shows that the expectations of the online shoppers with reference to this feature of online shopping is very high as compared to their perception of it. The other highest positive gaps are safety of personal details and after sales services. Even though it was observed in the previous section that the online shoppers agreed with having perception of the factors product received as ordered and safety of personal details, but it is not as per their expectations. The online shoppers expect more improvement in online shopping and hence, the higher gaps were found among the above three factors of online shopping.

#### 4.5.2 Paired T test

Paired samples t test is a test for the differences in the means of paired samples. (Malhotra, 2016<sup>60</sup>)

**TABLE 4.14: Paired sample statistics -1**

	<b>Factors</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Pair 1	E - Time Saving	4.13	.836	.037
	P - Time Saving	3.86	.945	.042
Pair 2	E Variety	4.06	.869	.039

	P Variety	3.82	.936	.042
Pair 3	E Anytime and place	4.11	.836	.037
	P Anytime and place	3.90	.954	.043
Pair 4	E Convenient	3.45	.954	.043
	P Convenient	3.46	1.019	.046
Pair 5	E Ease of Internet use	4.06	.819	.037
	P Ease of Internet use	3.90	.857	.038
Pair 6	E Product Information	3.99	.846	.038
	P Product Information	3.79	.926	.041
Pair 7	E Good discounts prices	4.05	.856	.038
	P Good discounts prices	3.85	.923	.041
Pair 8	E Need for greater ease	3.98	.864	.039
	P Need for greater ease	3.84	.912	.041
Pair 9	E Clarity in website	3.77	.986	.044
	P Clarity in website	3.61	1.004	.045
Pair 10	E Free from fraud	3.20	1.264	.057
	P Free from fraud	2.88	1.105	.049

**TABLE 4.15: Paired sample statistics -2**

<b>Factors</b>		<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>
Pair 1	E Safety of Credit card	3.63	1.097	.049
	P Safety of Credit card	3.38	1.015	.045
Pair 2	E Product received as ordered	3.67	1.089	.049
	P Product received as ordered	3.18	1.041	.047
Pair 3	E Intact product	3.55	1.157	.052
	P Intact product	3.21	1.159	.052
Pair 4	E Timely Product Delivery	3.60	1.114	.050
	P Timely Product Delivery	3.29	1.034	.046

Pair 5	E Free delivery	3.82	1.112	.050
	P Free delivery	3.48	1.052	.047
Pair 6	E Safe home delivery	3.76	.995	.045
	P Safe home delivery	3.53	.954	.043
Pair 7	E Easy return of products	3.88	.984	.044
	P Easy return of products	3.53	1.005	.045
Pair 8	E Safety of personal details	3.78	1.060	.047
	P Safety of personal details	3.36	1.026	.046
Pair 9	E Customer support availability	3.82	.969	.043
	P Customer support availability	3.48	.953	.043
Pair 10	E Prompt customer services	3.83	1.000	.045
	P Prompt customer services	3.53	.959	.043
Pair 11	E After sales services	3.82	.987	.044
	P After sales services	3.41	.994	.044

In the present research study, paired t test is performed using statistical software for twenty one pairs of factors of expectations and perceptions towards online shopping. The hypothesis which includes the paired t test is as follows:

$H_0$ : The expectations towards online shopping is same as the perceptions towards it.

$H_a$ : The perceptions towards online shopping is different from the expectations towards it.

The twenty one pairs for the paired t test were formed using the twenty one variables of expectation and the twenty one variables of perception. The paired t test was performed for these twenty one pairs under study using the computer software. The output obtained for the t test is presented in the following tables.

Tables 4.14 and 4.15 present the obtained values of mean, standard deviation and standard error mean for the twenty one pairs of factors in the study.

Tables 4.16 and 4.17 represent the obtained t test values for the twenty one pairs of factors. In these tables, the second, third and fourth column represent the differences in mean, standard deviation and standard error mean. The last column of the table represents the significance value for the two tailed test. The hypothesis is tested at 5% level of significance.

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**TABLE 4.16: Paired sample t test -1**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	E - Time Saving - P - Time Saving	.268	.811	.036	.197	.339	7.391	499	.000
Pair 2	E Variety - P Variety	.240	.917	.041	.159	.321	5.855	499	.000
Pair 3	E Anytime and place - P Anytime and place	.214	.868	.039	.138	.290	5.512	499	.000
Pair 4	E Convenient - P Convenient	-.004	.956	.043	-.088	.080	-.094	499	.925
Pair 5	E Ease of Internet use - P Ease of Internet use	.154	.836	.037	.081	.227	4.117	499	.000
Pair 6	E Product Information - P Product Information	.204	.951	.043	.120	.288	4.797	499	.000
Pair 7	E Good discounts prices - P Good discounts prices	.194	.889	.040	.116	.272	4.881	499	.000
Pair 8	E Need for greater ease - P Need for greater ease	.138	.943	.042	.055	.221	3.273	499	.001

Pair 9	E Clarity in website - P Clarity in website	.168	1.048	.047	.076	.260	3.585	499	.000
Pair 10	E Free from fraud - P Free from fraud	.320	1.286	.057	.207	.433	5.566	499	.000

**TABLE 4.17: Paired sample t test -2**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	E Safety of Credit card - P Safety of Credit card	.252	1.142	.051	.152	.352	4.936	499	.000
Pair 2	E Product received as ordered - P Product received as ordered	.494	1.222	.055	.387	.601	9.040	499	.000
Pair 3	E Intact product - P Intact product	.334	1.243	.056	.225	.443	6.007	499	.000
Pair 4	E Timely Product Delivery - P Timely Product Delivery	.310	1.185	.053	.206	.414	5.849	499	.000
Pair 5	E Free delivery - P Free delivery	.344	1.108	.050	.247	.441	6.941	499	.000
Pair 6	E Safe home delivery - P Safe home delivery	.222	1.044	.047	.130	.314	4.753	499	.000
Pair 7	E Easy return of products - P Easy return of products	.352	1.136	.051	.252	.452	6.928	499	.000

Pair 8	E Safety of personal details - P Safety of personal details	.418	1.164	.052	.316	.520	8.033	499	.000
Pair 9	E Customer support availability - P Customer support availability	.336	1.009	.045	.247	.425	7.450	499	.000
Pair 10	E Prompt customer services - P Prompt customer services	.302	1.057	.047	.209	.395	6.389	499	.000
Pair 11	E After sales services - P After sales services	.408	1.095	.049	.312	.504	8.328	499	.000

From the last column of the tables it is observed that only for the convenient factor pair, the significance value is 0.925 which is greater than 0.05. Hence for this factor, the null hypothesis is not rejected and it can be concluded that at 5% level of significance, for convenience of online shopping, the expectations towards online shopping is same as the perception towards it. For all other twenty factors, there is statistically significant difference between expectation and perception at 5% level of significance, as the two tailed test significance value is less than 0.05. Hence for the twenty factors, the null hypothesis is rejected and it can be concluded that the online shoppers' perceptions towards online shopping is different from their expectations towards it.

#### **4.6 Reliability, Validity, Data Quality Check for the Data of Online Shoppers' Agreeing Level**

In two of the questions of the questionnaire used in the research study, the respondents were asked to give their level of agreeing with having perception and with having expectation towards the twenty one factors of online shopping. In order to use this data for different interdependence techniques, it is important to check regarding the reliability, validity and data quality of the data.

#### 4.6.1 Reliability

Cronbach Alpha coefficient value has been used to evaluate the questionnaire reliability, as shown in the following tables.

**TABLE 4.18: Cronbach's Alpha for Perception items**

Perception Items	
Cronbach's Alpha	Number of items
0.87	21

**TABLE 4.19: Cronbach's Alpha for Expectation items**

Expectation Items	
Cronbach's Alpha	Number of Items
0.883	21

As observed in Table 4.18, Cronbach's Alpha coefficient value for the twenty one perception factors used to measure the level of agreeing of online shoppers with having perceived these factors in online shopping is 0.870.

Also, from Table 4.19, Cronbach's Alpha coefficient value for the twenty one expectation factors used to measure the level of agreeing of online shoppers with having expectation of these factors in online shopping is 0.883.

The value of Cronbach's alpha for perception items and expectation items indicates a high level of internal consistency in the items. Hence, the output results show that the questionnaire is reliable.

#### 4.6.2 Validity

The validity of the twenty one perception and expectation factors or items, was checked by computing Pearson correlation coefficient. The computed predictive validity value for perception and expectation items is presented in the following tables.

**TABLE 4.20: Predictive validity value for Perception items**

<b>Perception Items</b>	
Predictive Validity	Number of items
0.9571	21

**TABLE 4.21: Predictive validity value for Expectation items**

<b>Expectation Items</b>	
Predictive Validity	Number of items
0.9857	21

For the twenty one perception items in the research study, 201 pairs out of 210 pairs are statistically significant at 5% level of significance. Hence from the Table 4.20, the predictive validity computed is 0.9571.

Also, for the twenty one expectation items in the research study, 207 pairs out of 210 pairs are statistically significant at 5% level of significance. Hence from the Table 4.21, the predictive validity computed is 0.9857.

Hence, from the above computation, the predictive validity values 0.9571 and 0.9857 are near to 1, as this shows a higher level of predictive validity of the scale in the research study, it can be said the scale is valid.

#### **4.6.3 Data Quality**

Data Quality for the twenty one perception items and the twenty one expectation items is examined by checking the values of Skewness and Kurtosis as presented in the following tables.

**TABLE 4.22: Data Quality for Perception factors**

<b>Factors</b>	<b>Mean</b>	<b>S.D.</b>	<b>Skewness</b>	<b>Kurtosis</b>
Time saving	4.13	0.836	-1.282	2.615
Variety	4.06	0.869	-0.974	1.081

Anytime and place	4.11	0.836	-1.706	1.607
Convenient	3.45	0.954	-0.376	0.052
Ease of internet use	4.06	0.819	-1.094	2.186
Product Information	3.99	0.846	-0.779	0.832
Good discounts prices	4.05	0.856	-0.857	0.797
Need for greater ease	3.98	0.864	-0.687	0.488
Clarity in website	3.77	0.986	-0.654	0.005
Free from fraud	3.2	1.264	-0.042	-1.088
Safety of credit card	3.63	1.097	-0.482	0.524
Product received as ordered	3.67	1.089	-0.516	-0.543
Intact product	3.55	1.157	-0.406	-0.842
Timely product delivery	3.6	1.114	-0.476	-0.704
Free Delivery	3.82	1.112	-0.75	-0.273
Safe home delivery	3.76	0.995	-0.72	0.309

Easy return of products	3.88	0.984	-0.779	0.233
Safety of personal details	3.78	1.06	-0.521	-0.547
Customer support availability	3.82	0.969	-0.677	0.214
Prompt customer services	3.83	1	-0.748	0.125
After sales services	3.82	0.987	-0.563	-0.199

For good data quality, all values of Skewness and Kurtosis should be less than 1.96. In the above Table 4.22, it is observed that Skewness values for all the factors are less than 1.067. It is also revealed from the table that Kurtosis value for majority of items is less than 1 and out of 21 factors, only 2 factors have Kurtosis values greater than 1. Hence good data quality is observed for the 21 items or factors of perception towards online shopping. Table 4.23 for the data quality of the twenty one expectation items or factors is as given below.

**TABLE 4.23: Data Quality for Expectation factors**

<b>Factors</b>	<b>Mean</b>	<b>S.D.</b>	<b>Skewness</b>	<b>Kurtosis</b>
Time saving	4.13	0.836	-1.282	2.615
Variety	4.06	0.869	-0.974	1.081
Anytime and place	4.11	0.836	-1.706	1.607
Convenient	3.45	0.954	-0.376	0.052

Ease of internet use	4.06	0.819	-1.094	2.186
Product Information	3.99	0.846	-0.779	0.832
Good discounts prices	4.05	0.856	-0.857	0.797
Need for greater ease	3.98	0.864	-0.687	0.488
Clarity in website	3.77	0.986	-0.654	0.005
Free from fraud	3.2	1.264	-0.042	-1.088
Safety of credit card	3.63	1.097	-0.482	0.524
Product received as ordered	3.67	1.089	-0.516	-0.543
Intact product	3.55	1.157	-0.406	-0.842
Timely product delivery	3.6	1.114	-0.476	-0.704
Free Delivery	3.82	1.112	-0.75	-0.273
Safe home delivery	3.76	0.995	-0.72	0.309
Easy return of products	3.88	0.984	-0.779	0.233
Safety of personal details	3.78	1.06	-0.521	-0.547
Customer support availability	3.82	0.969	-0.677	0.214

Prompt customer services	3.83	1	-0.748	0.125
After sales services	3.82	0.987	-0.563	-0.199

As discussed in the above section, for good data quality, all values of Skewness and Kurtosis should be less than 1.96. In the given Table 4.23, it is observed that Skewness values for all items are less than 1.706. It is also found from the above table that Kurtosis values for majority of the expectation factors is less than 1, that is, out of 21 factors, only 5 factors have values greater than 1. Hence good data quality of the expectation items is obtained. From the twenty one expectation items, only 1 item was found not to be having good data quality.

Thus from the Tables 4.22 and 4.23, all the twenty one factors or items of the perception and expectation towards online shopping are found to have good data quality.

#### 4.7 Factor Analysis

According to an explanation given by (Malhotra, 2016<sup>60</sup>), factor analysis is a general name denoting a class of procedures primarily used for data reduction and summarization. Relationships among sets of many interrelated variables are examined and represented in terms of a few underlying factors. Factor analysis can be used in the following circumstances: (1) To identify underlying dimensions or factors, that explain the correlations among a set of variables. (2) To identify a new, smaller set of uncorrelated variables to replace the original set of correlated variables in subsequent multivariate analysis. (3) To identify a smaller set of salient variables from a larger set for use in subsequent multivariate analysis.

In the present research study, factor analysis has been used to reduce the number of factors that are used to measure the agreeing level of respondents. Respondents were online shoppers who were asked to give their level of agreeing through five point Likert scale ranging from 1 (representing strongly disagree) to 5 (representing strongly agree) for twenty one factors or determinants of perception and expectation towards online shopping. For fifteen factors of perception towards online shopping, factor analysis was performed in the research study.

#### 4.7.1 Bartlett's test of sphericity

Bartlett's test of sphericity is a test statistic used to examine the hypothesis that the variables are uncorrelated in the population. In other words, the population correlation matrix is an identity matrix; each variable correlates perfectly with itself but has no correlation with the other variables. (Malhotra, 2016<sup>60</sup>). It is observed from the following Tables 4.24 and 4.25, that the significance value of Bartlett's test of sphericity for the twenty one variables of perception as well as for the twenty one variables of expectation towards online shopping is 0.000, which shows rejection of the idea that the correlation matrix is an identity matrix.

**TABLE 4.24: KMO and Bartlett's test for perception variables**

##### **KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.898
	Approx. Chi-Square	2864.645
Bartlett's Test of Sphericity	df	210
	Sig.	0.000

**TABLE 4.25: KMO and Bartlett's test for expectation variables**

##### **KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
	Approx. Chi-Square	3088.379
Bartlett's Test of Sphericity	df	210
	Sig.	0.000

#### 4.7.2 Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used 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. (Malhotra 2016<sup>60</sup>). In the above Tables 4.24 and 4.25, it is observed that the KMO value found for perception variables is 0.898 and the KMO value for expectation variables is 0.915. As these values are close to 1, these values are acceptable and justify the appropriateness of factor analysis.

#### 4.7.3 Communalities

Communality is the amount of variance a variable shares with all the other variables being considered. This is also the proportion of variance explained by the common factors. In the present research study, the factor analysis for the variables of perception towards online shopping is performed through Principal Component Analysis. This is an approach to factor analysis that considers the total variance in the data. In the study, communalities for fifteen perception variables are calculated in computer software and are presented in the following Table 4.26. A low communality figure means that the variable is statistically independent and cannot be combined with other variables. The following table shows the extracted communalities are close to 0.5 and acceptable for the variables.

**TABLE 4.26: Communalities**

<b>Variables</b>	<b>Initial</b>	<b>Extraction</b>
Time saving	1	0.66
Variety	1	0.61
Anytime and place	1	0.58
Ease of internet use	1	0.49
Need for greater ease	1	0.73
Clarity in website	1	0.66
Free from fraud	1	0.6
Safety of credit card	1	0.72
Product received as ordered	1	0.71

Intact product	1	0.64
Timely product delivery	1	0.54
Free delivery	1	0.51
Safe home delivery	1	0.54
Safety of personal details	1	0.63
Prompt customer services	1	0.45

#### 4.7.4 Variance

It is required that the components extracted should be able to explain maximum variance. Hence, an analysis of the Eigen values is required. Eigen values represent the total variance explained by each factor (Malhotra, 2016<sup>60</sup>). The Eigen values of the fifteen variables that can be extracted is shown in the following Table 4.27. A maximum of fifteen components from the fifteen variables can be extracted. Cumulative variance is also given in the table. As it is required that the maximum amount of variance should be explained by a minimum number of components, the extraction of components is required. The components having the Eigen values greater than one are extracted. Therefore from the following table, there are five factors extracted in the study and these five factors together contribute to 60.56 % of total variance, which being a fair percentage of variance to be explained. Hence, five dimensions or main factors are extracted from the total 15 variables for measuring the perception of online shoppers towards online shopping.

In the Table 4.27, in the section showing the extraction sums of squared loadings, in the column having percentage of variance, it is observed that only the first component attributes for 28.04% of variance, hence 60.56% of variance is not uniformly distributed among all components. Therefore for uniform distribution of variance among all components, a rotation of the component matrix is performed. Component matrix contains the loadings of all the variables to the extracted components.

**TABLE 4.27: Total variance explained**

Initial Eigenvalues			Extraction Sums of Squared Loadings				Rotation Sums of Squared Loadings			
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	4.21	28.04	28.04	4.21	28.04	28.04	2.41	16.04	16.04	
2	1.94	12.91	40.96	1.94	12.91	40.96	1.58	10.5	26.54	
3	1.06	7.05	48.01	1.06	7.05	48.01	1.74	11.62	38.16	
4	0.97	6.49	54.5	0.97	6.49	54.5	1.59	10.58	48.74	
5	0.91	6.07	60.56	0.91	6.07	60.56	1.77	11.82	60.56	
6	0.75	5.01	65.57							
7	0.75	4.97	70.54							
8	0.7	4.69	75.23							
9	0.68	4.55	79.78							
10	0.62	4.15	83.93							
11	0.59	3.94	87.87							
12	0.53	3.51	91.38							
13	0.47	3.13	94.51							
14	0.42	2.78	97.29							
15	0.41	2.71	100							

Extraction method: Principal Component Analysis

Although the unrotated factor matrix indicates the relationship between the factors and individual variables, it seldom results in factors that can be interpreted because the factors are correlated with many variables. In such a complex matrix it is difficult to interpret the factors. Therefore through rotation the factor matrix is transformed into a simpler one that is easier to interpret. Some of the different methods of rotation are as follows: (i) Orthogonal rotation: Rotation of factors in which the axes are maintained at right angles. (ii) Varimax procedure: An orthogonal method of factor rotation that minimizes the number of variables with high loadings on a factor, thereby enhancing the interpretability of the factors. (iii) Oblique rotation: Rotation of factors when the axes are not maintained at right angles. (Malhotra, 2016<sup>60</sup>).

Varimax rotation has been used in this study, it is one of the most common method of rotation. In the above Table 4.27, by observing the variance attributed by each component before and after the rotation method, it can be said that the variance is now evenly distributed in the range of 10.50% to 16.04% which was 6.07% to 28.04% before rotation.

#### 4.7.5 Rotated component matrix

The factors are interpreted from the rotated factor matrix on the basis of the factor loadings. The rotated component matrix is presented in the following table 4.28.

**TABLE 4.28: Rotated Component Matrix**

Variables	Component				
	1	2	3	4	5
Time Saving	<b>0.80</b>	-0.04	0.13	0.01	0.07
Variety	<b>0.76</b>	0.06	0.01	0.14	0.1
Anytime and place	<b>0.71</b>	0.02	-0.01	0.18	0.21
Ease of internet use	<b>0.61</b>	0.15	0.04	0.31	0.05
Need for greater ease	0.29	0	0.08	<b>0.79</b>	0.14
Clarity in website	0.25	0.21	0.14	<b>0.72</b>	0.09
Free from fraud	0.13	0.43	<b>0.61</b>	-0.15	0.08
Safety of credit card	0.08	0.13	<b>0.82</b>	0.11	0.09
Product received as ordered	-0.01	<b>0.79</b>	0.06	0.22	0.18
Intact product	0.07	<b>0.75</b>	0.19	0.03	0.2
Timely product delivery	0.18	0.3	0.13	-0.17	<b>0.62</b>
Free delivery	0.13	0.15	0.02	0.05	<b>0.69</b>
Safe home delivery	-0.04	0.04	0.23	0.28	<b>0.64</b>

Safety of personal details	-0.02	0	<b>0.71</b>	0.22	0.27
Prompt customer services	0.28	0.08	0.21	0.24	<b>0.51</b>

Factor loadings are the simple correlations between the variables and the factors. (Malhotra, 2016<sup>60</sup>). For better data reduction, the variables having factor loadings more than 0.50 were considered for each factor. Since fifteen perception variables had factor loading more than 0.50, hence these fifteen variables are considered for loading on the extracted five factors.

**TABLE 4.29: Grouping of variables**

Variables	Component				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Time Saving	<b>0.8</b>				
Variety	<b>0.76</b>				
Anytime and place	<b>0.71</b>				
Ease of internet use	<b>0.61</b>				
Product received as ordered		<b>0.79</b>			
Intact product		<b>0.75</b>			
Free from fraud			<b>0.61</b>		
Safety of credit card			<b>0.82</b>		
Safety of personal details			<b>0.71</b>		
Need for greater ease				<b>0.79</b>	

Clarity in website				<b>0.72</b>	
Timely product delivery					<b>0.62</b>
Free Delivery					<b>0.69</b>
Safe home delivery					<b>0.64</b>
Prompt customer services					<b>0.51</b>

From the table, the variables time saving, variety, anytime and place, ease of internet use are grouped as factor1. The variables product received as ordered and intact product constitute the factor 2. Factor 3 consists of the variables free from fraud, safety of credit card, safety of personal details. The variables need for greater ease and clarity in website are included in factor 4. Factor 5 has the variables timely product delivery, free delivery, safe home delivery, prompt customer services.

#### **4.7.6 Naming of the factors**

The five factors were identified as per the factor loading and named as follows:

##### **Factor 1: Flexibility**

This factor consists of variables that emphasize on the flexibility aspect of online shopping. Online shoppers purchase online as it saves their time of visiting a store or shop, enables them to view a wide variety of products from which they can choose, shop from anywhere be it home or workplace or travel, shop at anytime even late night or early morning. These features highlight the flexibility which the online shoppers associate with online shopping. Also, they agree with having perception of and giving attention to ease of internet use which shows online shoppers feel knowledge and practice of internet activities enable one to have a more easy, adaptive and flexible experience while shopping online.

##### **Factor 2: Product safety**

The variables associated with this factor indicate the concern of online shoppers for receiving the same product which they ordered online, intact and in good and acceptable state. The online shoppers order a product online on the assumption it would be delivered intact to them and there would be no hassle for them such as delivery of a defective or

damaged or different product.

**Factor 3: Online Security**

This factor includes the variables which focus on the security aspect of online shopping. It is a major concern of the online shoppers that the online financial transaction they do for online shopping is through a trusted website, the transaction is free from any fraud, the details of their credit card and their name, address and other personal details are secure and not accessible to and not revealed to any third parties.

**Factor 4: Simplicity**

The factor shows the emphasis given by online shoppers on the desire for more ease while viewing product categories, prices, offers, deals and clarity in the product information and online order and purchase of products so that they can easily understand and perform desired online shopping, easily and faster.

**Factor 5: Efficiency in Services**

The factor consists of the variables which show the features which the online shoppers desire for efficiency in product delivery and customer services such as product delivered on time, products being delivered with no extra charges, safe home delivery of products that is the means and persons delivering the product to online shoppers are reliable and it is safe to receive the products at home. The online shoppers also agree with having perception of the availability of prompt customer services which means during any stage of online shopping, such as viewing the products online, ordering the products and purchasing it, and also while taking the product into use, the online shoppers should be able to easily ask the customer service or support for help or assistance and receive prompt response which helps them in solving their query and understand and perform online shopping.

**4.7.7 Mean customers' agreeing score of extracted factors**

The following Table 4.30 shows the factor wise mean agreeing score of online shoppers which is obtained by taking the grand mean of variables grouped in each factor.

**TABLE 4.30: Mean customer agreeing score of extracted factors**

<b>Factor</b>	<b>Factor Name</b>	<b>Grand Mean Value</b>
Factor 1	Flexibility	3.87
Factor 2	Product Safety	3.195
Factor 3	Online Security	3.206
Factor 4	Simplicity	3.725
Factor 5	Efficiency in Services	3.4575

From the given table 5.29 , the score is highest for flexibility. It is 3.87. This shows online shoppers more agree with having perceived flexibility in online shopping. The least score is for factor 2 and it is 3.195. The factor is product safety. This indicates the online shoppers agree less with having perceived the product safety aspect of online shopping. The factors efficiency in services, simplicity, online security score in the middle. This shows the leading and lagging aspects of online shopping and help the online marketers to identify the aspects in which the online shoppers agree about having a perception or experience of or expect more with regard to the aspect and from this understanding, the online marketers can offer products and services which increase customer satisfaction and lead to growth of online shopping market and industry.

## **4.8 One Way Analysis Of Variance (ANOVA) To Study Impact Of Annual Family Income On Online Shoppers' Perception**

### **4.8.1 Association between annual family income of the online shoppers and the determinants of perception towards online shopping**

ANOVA test was performed in the statistical software to test the impact of annual family income of online shoppers on the determinants of perception towards online shopping.

The hypothesis for this is given as follows:

$H_0$  :There is no impact of income of the online shoppers on the determinants of perception towards online shopping.

H<sub>a</sub> :There is impact of income of the online shoppers on the determinants of perception towards online shopping.

ANOVA test is performed at 5% level of significance (confidence level is 95%). In the following ANOVA test in the research study, there are four categories of annual family income and twenty one factors or determinants of perception. The annual family income is in lakh Rupees per annum (LPA) and its four categories in rupees are: 2,00,000 to 5,00,000, 500001 to 800000, 800001 to 1100000 and above 11,00,000. The output of the performed test is presented in the following Table 4.31.

**TABLE 4.31: ANOVA table for income**

		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>Time saving</b>	Between Groups	8.024	3	2.675	3.033	<b>0.029</b>
	Within Groups	437.454	496	0.882		
	Total	445.478	499			
<b>Variety</b>	Between Groups	3.271	3	1.09	1.247	0.292
	Within Groups	433.801	496	0.875		
	Total	437.072	499			
<b>Anytime and Place</b>	Between Groups	6.09	3	2.03	2.245	0.082
	Within Groups	448.502	496	0.904		
	Total	454.592	499			
<b>Convenient</b>	Between Groups	7.704	3	2.568	2.495	0.059
	Within Groups	510.414	496	1.029		

	Total	518.118	499			
<b>Ease of Internet use</b>	Between Groups	2.922	3	0.974	1.33	0.264
	Within Groups	363.276	496	0.732		
	Total	366.198	499			
<b>Product Information</b>	Between Groups	0.716	3	0.239	0.277	0.842
	Within Groups	427.386	496	0.862		
	Total	428.102	499			
<b>Good Discounts Prices</b>	Between Groups	6.163	3	2.054	2.432	0.064
	Within Groups	418.885	496	0.845		
	Total	425.048	499			
<b>Need for greater ease</b>	Between Groups	3.063	3	1.021	1.229	0.299
	Within Groups	412.137	496	0.831		
	Total	415.2	499			
<b>Clarity in website</b>	Between Groups	8.274	3	2.758	2.763	<b>0.042</b>
	Within Groups	495.108	496	0.998		
	Total	503.382	499			
<b>Free from fraud</b>	Between Groups	0.417	3	0.139	0.113	0.952
	Within Groups	608.855	496	1.228		
	Total	609.272	499			

<b>Safety of credit card</b>	Between Groups	0.195	3	0.065	0.063	0.98
	Within Groups	513.843	496	1.036		
	Total	514.038	499			
<b>Product received as ordered</b>	Between Groups	4.946	3	1.649	1.525	0.207
	Within Groups	536.212	496	1.081		
	Total	541.158	499			
<b>Intact Product</b>	Between Groups	10.665	3	3.555	2.674	<b>0.047</b>
	Within Groups	659.437	496	1.33		
	Total	670.102	499			
<b>Timely Product Delivery</b>	Between Groups	5.296	3	1.765	1.658	0.175
	Within Groups	528.072	496	1.065		
	Total	533.368	499			
<b>Free Delivery</b>	Between Groups	0.364	3	0.121	0.109	0.955
	Within Groups	552.394	496	1.114		
	Total	552.758	499			
<b>Safe home delivery</b>	Between Groups	2.818	3	0.939	1.032	0.378
	Within Groups	451.604	496	0.91		
	Total	454.422	499			

<b>Easy return of products</b>	Between Groups	2.764	3	0.921	0.911	0.435
	Within Groups	501.724	496	1.012		
	Total	504.488	499			
<b>Safety of personal details</b>	Between Groups	3.686	3	1.229	1.169	0.321
	Within Groups	521.514	496	1.051		
	Total	525.2	499			
<b>Customer Support availability</b>	Between Groups	10.591	3	3.53	3.959	<b>0.008</b>
	Within Groups	442.247	496	0.892		
	Total	452.838	499			
<b>Prompt customer services</b>	Between Groups	2.294	3	0.765	0.831	0.477
	Within Groups	456.194	496	0.92		
	Total	458.488	499			
<b>After sales services</b>	Between Groups	0.697	3	0.232	0.234	0.873
	Within Groups	492.431	496	0.993		
	Total	493.128	499			

In the above result table for ANOVA for annual family income of the respondents, the significance values for each perception determinant or factor of online shopping are given in the last column of the table. From the obtained significance values, it is found that there is impact of occupation on the following perception determinants: time saving, clarity in website, intact product and customer support availability as the significance values for these factors are less than 0.05. Hence, null hypothesis is rejected for these determinants

and it can be concluded that income of the online shoppers has impact on the determinants of perception towards online shopping. As only some of the means may be significantly different, the differences among specific means are examined with the use of post hoc tests. Multiple comparisons post hoc tests are used to determine which of the means are statistically different. (Pandya, 2010<sup>44</sup>). There are various multiple comparison tests, least significant difference (LSD) is a common and powerful test.

Least Significant Difference (LSD) test was performed in this study, only for the perception factors or determinants for which the null hypothesis was rejected and pair wise comparisons of all annual family income categories was done in LSD. The LSD test and output is shown in the following Table 4.32.

**TABLE 4.32: LSD Multiple comparisons**

Dependent Variable	(I) Income	(J) Income	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Time saving	2 to 5	5 to 8	-0.16764	0.1037	0.107	-0.3714	0.0361
		8 to 11	<b>-.42528*</b>	0.15164	0.005	-0.7232	-0.1273
		Above 11	-0.08437	0.15164	0.578	-0.3823	0.2136
	5 to 8	2 to 5	0.16764	0.1037	0.107	-0.0361	0.3714
		8 to 11	-0.25764	0.16688	0.123	-0.5855	0.0702
		Above 11	0.08327	0.16688	0.618	-0.2446	0.4111
	8 to 11	2 to 5	<b>.42528*</b>	0.15164	0.005	0.1273	0.7232
		5 to 8	0.25764	0.16688	0.123	-0.0702	0.5855
		Above 11	0.34091	0.20022	0.089	-0.0525	0.7343
	Above 11	2 to 5	0.08437	0.15164	0.578	-0.2136	0.3823
		5 to 8	-0.08327	0.16688	0.618	-0.4111	0.2446
		8 to 11	-0.34091	0.20022	0.089	-0.7343	0.0525
Variety	2 to 5	5 to 8	-0.1767	0.10327	0.088	-0.3796	0.0262
		8 to 11	-0.17931	0.151	0.236	-0.476	0.1174
		Above 11	-0.0884	0.151	0.559	-0.3851	0.2083

	5 to 8	2 to 5	0.1767	0.10327	0.088	-0.0262	0.3796
		8 to 11	-0.00261	0.16618	0.987	-0.3291	0.3239
		Above 11	0.08829	0.16618	0.595	-0.2382	0.4148
	8 to 11	2 to 5	0.17931	0.151	0.236	-0.1174	0.476
		5 to 8	0.00261	0.16618	0.987	-0.3239	0.3291
		Above 11	0.09091	0.19939	0.649	-0.3008	0.4827
	Above 11	2 to 5	0.0884	0.151	0.559	-0.2083	0.3851
		5 to 8	-0.08829	0.16618	0.595	-0.4148	0.2382
		8 to 11	-0.09091	0.19939	0.649	-0.4827	0.3008
<b>Anytime and place</b>	2 to 5	5 to 8	<b>-.23900*</b>	0.10501	0.023	-0.4453	-0.0327
		8 to 11	-0.03687	0.15354	0.81	-0.3385	0.2648
		Above 11	0.12223	0.15354	0.426	-0.1794	0.4239
	5 to 8	2 to 5	<b>.23900*</b>	0.10501	0.023	0.0327	0.4453
		8 to 11	0.20213	0.16898	0.232	-0.1299	0.5341
		Above 11	<b>.36122*</b>	0.16898	0.033	0.0292	0.6932
	8 to 11	2 to 5	0.03687	0.15354	0.81	-0.2648	0.3385
		5 to 8	-0.20213	0.16898	0.232	-0.5341	0.1299
		Above 11	0.15909	0.20274	0.433	-0.2392	0.5574
	Above 11	2 to 5	-0.12223	0.15354	0.426	-0.4239	0.1794
		5 to 8	<b>-.36122*</b>	0.16898	0.033	-0.6932	-0.0292
		8 to 11	-0.15909	0.20274	0.433	-0.5574	0.2392
<b>Convenient</b>	2 to 5	5 to 8	-0.14183	0.11202	0.206	-0.3619	0.0783
		8 to 11	0.07981	0.1638	0.626	-0.242	0.4016
		Above 11	<b>-.39746*</b>	0.1638	0.016	-0.7193	-0.0756
	5 to 8	2 to 5	0.14183	0.11202	0.206	-0.0783	0.3619
		8 to 11	0.22164	0.18026	0.219	-0.1325	0.5758
		Above 11	-0.25563	0.18026	0.157	-0.6098	0.0985
	8 to 11	2 to 5	-0.07981	0.1638	0.626	-0.4016	0.242
		5 to 8	-0.22164	0.18026	0.219	-0.5758	0.1325
		8 to 11	<b>-.47727*</b>	0.21628	0.028	-0.9022	-0.0523

	Above 11	2 to 5	<b>.39746*</b>	0.1638	0.016	0.0756	0.7193
		5 to 8	0.25563	0.18026	0.157	-0.0985	0.6098
		8 to 11	<b>.47727*</b>	0.21628	0.028	0.0523	0.9022
<b>Ease of internet use</b>	2 to 5	5 to 8	-0.12493	0.0945	0.187	-0.3106	0.0607
		8 to 11	-0.17923	0.13819	0.195	-0.4507	0.0923
		Above 11	0.09349	0.13819	0.499	-0.178	0.365
	5 to 8	2 to 5	0.12493	0.0945	0.187	-0.0607	0.3106
		8 to 11	-0.0543	0.15208	0.721	-0.3531	0.2445
		Above 11	0.21842	0.15208	0.152	-0.0804	0.5172
	8 to 11	2 to 5	0.17923	0.13819	0.195	-0.0923	0.4507
		5 to 8	0.0543	0.15208	0.721	-0.2445	0.3531
		Above 11	0.27273	0.18246	0.136	-0.0858	0.6312
	Above 11	2 to 5	-0.09349	0.13819	0.499	-0.365	0.178
		5 to 8	-0.21842	0.15208	0.152	-0.5172	0.0804
	<b>Product Information</b>	2 to 5	8 to 11	-0.27273	0.18246	0.136	-0.6312
5 to 8			-0.05928	0.1025	0.563	-0.2607	0.1421
8 to 11			0.06803	0.14988	0.65	-0.2265	0.3625
Above 11			-0.06833	0.14988	0.649	-0.3628	0.2262
5 to 8		2 to 5	0.05928	0.1025	0.563	-0.1421	0.2607
		8 to 11	0.12731	0.16495	0.441	-0.1968	0.4514
		Above 11	-0.00905	0.16495	0.956	-0.3331	0.315
8 to 11		2 to 5	-0.06803	0.14988	0.65	-0.3625	0.2265
		5 to 8	-0.12731	0.16495	0.441	-0.4514	0.1968
		Above 11	-0.13636	0.19791	0.491	-0.5252	0.2525
Above 11		2 to 5	0.06833	0.14988	0.649	-0.2262	0.3628
		5 to 8	0.00905	0.16495	0.956	-0.315	0.3331
	8 to 11	0.13636	0.19791	0.491	-0.2525	0.5252	
<b>Good Discounts</b>	2 to 5	5 to 8	<b>-.20206*</b>	0.10148	0.047	-0.4014	-0.0027
		8 to 11	-0.28291	0.14839	0.057	-0.5745	0.0086

<b>Prices</b>		Above 11	-0.21473	0.14839	0.148	-0.5063	0.0768	
	5 to 8	2 to 5	<b>.20206*</b>	0.10148	0.047	0.0027	0.4014	
		8 to 11	-0.08085	0.1633	0.621	-0.4017	0.24	
		Above 11	-0.01267	0.1633	0.938	-0.3335	0.3082	
	8 to 11	2 to 5	0.28291	0.14839	0.057	-0.0086	0.5745	
		5 to 8	0.08085	0.1633	0.621	-0.24	0.4017	
		Above 11	0.06818	0.19593	0.728	-0.3168	0.4531	
	Above 11	2 to 5	0.21473	0.14839	0.148	-0.0768	0.5063	
		5 to 8	0.01267	0.1633	0.938	-0.3082	0.3335	
		8 to 11	-0.06818	0.19593	0.728	-0.4531	0.3168	
	<b>Need for greater ease</b>	2 to 5	5 to 8	-0.11197	0.10066	0.267	-0.3097	0.0858
			8 to 11	0.18972	0.14719	0.198	-0.0995	0.4789
Above 11			-0.06028	0.14719	0.682	-0.3495	0.2289	
5 to 8		2 to 5	0.11197	0.10066	0.267	-0.0858	0.3097	
		8 to 11	0.30169	0.16198	0.063	-0.0166	0.6199	
		Above 11	0.05169	0.16198	0.75	-0.2666	0.3699	
8 to 11		2 to 5	-0.18972	0.14719	0.198	-0.4789	0.0995	
		5 to 8	-0.30169	0.16198	0.063	-0.6199	0.0166	
		Above 11	-0.25	0.19434	0.199	-0.6318	0.1318	
Above 11		2 to 5	0.06028	0.14719	0.682	-0.2289	0.3495	
		5 to 8	-0.05169	0.16198	0.75	-0.3699	0.2666	
		8 to 11	0.25	0.19434	0.199	-0.1318	0.6318	
<b>Clarity in website</b>	2 to 5	5 to 8	<b>-.24776*</b>	0.11033	0.025	-0.4645	-0.031	
		8 to 11	0.14343	0.16132	0.374	-0.1735	0.4604	
		Above 11	0.14343	0.16132	0.374	-0.1735	0.4604	
	5 to 8	2 to 5	<b>.24776*</b>	0.11033	0.025	0.031	0.4645	
		8 to 11	<b>.39119*</b>	0.17754	0.028	0.0424	0.74	
		Above 11	<b>.39119*</b>	0.17754	0.028	0.0424	0.74	
		2 to 5	-0.14343	0.16132	0.374	-0.4604	0.1735	

	8 to 11	5 to 8	<b>-.39119*</b>	0.17754	0.028	-0.74	-0.0424	
		Above 11	0	0.21301	1	-0.4185	0.4185	
<b>Free from fraud</b>	2 to 5	5 to 8	-0.04528	0.12235	0.711	-0.2857	0.1951	
		8 to 11	-0.08832	0.1789	0.622	-0.4398	0.2632	
		Above 11	0.00258	0.1789	0.988	-0.3489	0.3541	
	5 to 8	2 to 5	0.04528	0.12235	0.711	-0.1951	0.2857	
		8 to 11	-0.04304	0.19688	0.827	-0.4299	0.3438	
		Above 11	0.04787	0.19688	0.808	-0.339	0.4347	
	8 to 11	2 to 5	0.08832	0.1789	0.622	-0.2632	0.4398	
		5 to 8	0.04304	0.19688	0.827	-0.3438	0.4299	
		Above 11	0.09091	0.23621	0.701	-0.3732	0.555	
	Above 11	2 to 5	-0.00258	0.1789	0.988	-0.3541	0.3489	
		5 to 8	-0.04787	0.19688	0.808	-0.4347	0.339	
		8 to 11	-0.09091	0.23621	0.701	-0.555	0.3732	
	<b>Safety of credit card</b>	2 to 5	5 to 8	-0.01145	0.1124	0.919	-0.2323	0.2094
			8 to 11	-0.05389	0.16435	0.743	-0.3768	0.269
			Above 11	0.03702	0.16435	0.822	-0.2859	0.3599
5 to 8		2 to 5	0.01145	0.1124	0.919	-0.2094	0.2323	
		8 to 11	-0.04244	0.18087	0.815	-0.3978	0.3129	
		Above 11	0.04847	0.18087	0.789	-0.3069	0.4038	
8 to 11		2 to 5	0.05389	0.16435	0.743	-0.269	0.3768	
		5 to 8	0.04244	0.18087	0.815	-0.3129	0.3978	
		Above 11	0.09091	0.217	0.675	-0.3354	0.5173	
Above 11		2 to 5	-0.03702	0.16435	0.822	-0.3599	0.2859	
		5 to 8	-0.04847	0.18087	0.789	-0.4038	0.3069	
		8 to 11	-0.09091	0.217	0.675	-0.5173	0.3354	
<b>Product received as</b>	2 to 5	5 to 8	-0.14411	0.11482	0.21	-0.3697	0.0815	
		8 to 11	-0.16905	0.16789	0.314	-0.4989	0.1608	

<b>ordered</b>		Above 11	-0.30541	0.16789	0.069	-0.6353	0.0244	
	5 to 8	2 to 5	0.14411	0.11482	0.21	-0.0815	0.3697	
		8 to 11	-0.02494	0.18476	0.893	-0.388	0.3381	
		Above 11	-0.1613	0.18476	0.383	-0.5243	0.2017	
	8 to 11	2 to 5	0.16905	0.16789	0.314	-0.1608	0.4989	
		5 to 8	0.02494	0.18476	0.893	-0.3381	0.388	
		Above 11	-0.13636	0.22167	0.539	-0.5719	0.2992	
	Above 11	2 to 5	0.30541	0.16789	0.069	-0.0244	0.6353	
		5 to 8	0.1613	0.18476	0.383	-0.2017	0.5243	
		8 to 11	0.13636	0.22167	0.539	-0.2992	0.5719	
	<b>Intact Product</b>	2 to 5	5 to 8	<b>-.25699*</b>	0.12733	0.044	-0.5072	-0.0068
			8 to 11	<b>-.38028*</b>	0.18618	0.042	-0.7461	-0.0145
Above 11			-0.28937	0.18618	0.121	-0.6552	0.0764	
5 to 8		2 to 5	<b>.25699*</b>	0.12733	0.044	0.0068	0.5072	
		8 to 11	-0.12329	0.20489	0.548	-0.5259	0.2793	
		Above 11	-0.03238	0.20489	0.874	-0.4349	0.3702	
8 to 11		2 to 5	<b>.38028*</b>	0.18618	0.042	0.0145	0.7461	
		5 to 8	0.12329	0.20489	0.548	-0.2793	0.5259	
		Above 11	0.09091	0.24583	0.712	-0.3921	0.5739	
Above 11		2 to 5	0.28937	0.18618	0.121	-0.0764	0.6552	
		5 to 8	0.03238	0.20489	0.874	-0.3702	0.4349	
		8 to 11	-0.09091	0.24583	0.712	-0.5739	0.3921	
<b>Timely Product Delivery</b>	2 to 5	5 to 8	0.14073	0.11394	0.217	-0.0831	0.3646	
		8 to 11	-0.22773	0.16661	0.172	-0.5551	0.0996	
		Above 11	0.15863	0.16661	0.341	-0.1687	0.486	
	5 to 8	2 to 5	-0.14073	0.11394	0.217	-0.3646	0.0831	
		8 to 11	<b>-.36846*</b>	0.18335	0.045	-0.7287	-0.0082	
		Above 11	0.0179	0.18335	0.922	-0.3423	0.3781	
	8 to 11	2 to 5	0.22773	0.16661	0.172	-0.0996	0.5551	
5 to 8		<b>.36846*</b>	0.18335	0.045	0.0082	0.7287		

		Above 11	0.38636	0.21999	0.08	-0.0459	0.8186	
	Above 11	2 to 5	-0.15863	0.16661	0.341	-0.486	0.1687	
		5 to 8	-0.0179	0.18335	0.922	-0.3781	0.3423	
		8 to 11	-0.38636	0.21999	0.08	-0.8186	0.0459	
<b>Free Delivery</b>	2 to 5	5 to 8	0.03578	0.11654	0.759	-0.1932	0.2647	
		8 to 11	-0.02174	0.1704	0.899	-0.3565	0.3131	
		Above 11	-0.06719	0.1704	0.694	-0.402	0.2676	
	5 to 8	2 to 5	-0.03578	0.11654	0.759	-0.2647	0.1932	
		8 to 11	-0.05752	0.18753	0.759	-0.426	0.3109	
		Above 11	-0.10298	0.18753	0.583	-0.4714	0.2655	
	8 to 11	2 to 5	0.02174	0.1704	0.899	-0.3131	0.3565	
		5 to 8	0.05752	0.18753	0.759	-0.3109	0.426	
		Above 11	-0.04545	0.22499	0.84	-0.4875	0.3966	
	Above 11	2 to 5	0.06719	0.1704	0.694	-0.2676	0.402	
		5 to 8	0.10298	0.18753	0.583	-0.2655	0.4714	
		8 to 11	0.04545	0.22499	0.84	-0.3966	0.4875	
	<b>Safe home delivery</b>	2 to 5	5 to 8	0.16719	0.10537	0.113	-0.0398	0.3742
			8 to 11	0.16016	0.15407	0.299	-0.1426	0.4629
			Above 11	0.06925	0.15407	0.653	-0.2335	0.372
5 to 8		2 to 5	-0.16719	0.10537	0.113	-0.3742	0.0398	
		8 to 11	-0.00704	0.16956	0.967	-0.3402	0.3261	
		Above 11	-0.09795	0.16956	0.564	-0.4311	0.2352	
8 to 11		2 to 5	-0.16016	0.15407	0.299	-0.4629	0.1426	
		5 to 8	0.00704	0.16956	0.967	-0.3261	0.3402	
		Above 11	-0.09091	0.20344	0.655	-0.4906	0.3088	
Above 11		2 to 5	-0.06925	0.15407	0.653	-0.372	0.2335	
		5 to 8	0.09795	0.16956	0.564	-0.2352	0.4311	
		8 to 11	0.09091	0.20344	0.655	-0.3088	0.4906	
<b>Easy return of products</b>		2 to 5	5 to 8	0.04505	0.11106	0.685	-0.1732	0.2633
			8 to 11	-0.21823	0.1624	0.18	-0.5373	0.1008

	5 to 8	Above 11	0.09995	0.1624	0.539	-0.2191	0.419	
		2 to 5	-0.04505	0.11106	0.685	-0.2633	0.1732	
		8 to 11	-0.26327	0.17872	0.141	-0.6144	0.0879	
	8 to 11	Above 11	0.05491	0.17872	0.759	-0.2962	0.4061	
		2 to 5	0.21823	0.1624	0.18	-0.1008	0.5373	
		5 to 8	0.26327	0.17872	0.141	-0.0879	0.6144	
	Above 11	Above 11	0.31818	0.21443	0.138	-0.1031	0.7395	
		2 to 5	-0.09995	0.1624	0.539	-0.419	0.2191	
		5 to 8	-0.05491	0.17872	0.759	-0.4061	0.2962	
	<b>Safety of personal details</b>	2 to 5	8 to 11	-0.31818	0.21443	0.138	-0.7395	0.1031
			5 to 8	-0.17332	0.11323	0.126	-0.3958	0.0492
			8 to 11	-0.00981	0.16557	0.953	-0.3351	0.3155
5 to 8		Above 11	0.12656	0.16557	0.445	-0.1987	0.4519	
		2 to 5	0.17332	0.11323	0.126	-0.0492	0.3958	
		8 to 11	0.16352	0.18221	0.37	-0.1945	0.5215	
8 to 11		Above 11	0.29988	0.18221	0.1	-0.0581	0.6579	
		2 to 5	0.00981	0.16557	0.953	-0.3155	0.3351	
		5 to 8	-0.16352	0.18221	0.37	-0.5215	0.1945	
Above 11		Above 11	0.13636	0.21862	0.533	-0.2932	0.5659	
		2 to 5	-0.12656	0.16557	0.445	-0.4519	0.1987	
		5 to 8	-0.29988	0.18221	0.1	-0.6579	0.0581	
<b>Customer support availability</b>	2 to 5	8 to 11	-0.13636	0.21862	0.533	-0.5659	0.2932	
		5 to 8	-0.06017	0.10427	0.564	-0.265	0.1447	
		8 to 11	0.03778	0.15247	0.804	-0.2618	0.3373	
	5 to 8	Above 11	<b>.49232*</b>	0.15247	0.001	0.1928	0.7919	
		2 to 5	0.06017	0.10427	0.564	-0.1447	0.265	
		8 to 11	0.09795	0.16779	0.56	-0.2317	0.4276	
	8 to 11	Above 11	<b>.55249*</b>	0.16779	0.001	0.2228	0.8822	
		2 to 5	-0.03778	0.15247	0.804	-0.3373	0.2618	
		5 to 8	-0.09795	0.16779	0.56	-0.4276	0.2317	

		Above 11	<b>.45455*</b>	0.20132	0.024	0.059	0.8501
	Above 11	2 to 5	<b>-.49232*</b>	0.15247	0.001	-0.7919	-0.1928
		5 to 8	<b>-.55249*</b>	0.16779	0.001	-0.8822	-0.2228
		8 to 11	<b>-.45455*</b>	0.20132	0.024	-0.8501	-0.059
<b>Prompt customer services</b>	2 to 5	5 to 8	-0.14553	0.1059	0.17	-0.3536	0.0625
		8 to 11	-0.122	0.15485	0.431	-0.4262	0.1823
		Above 11	0.03709	0.15485	0.811	-0.2672	0.3413
	5 to 8	2 to 5	0.14553	0.1059	0.17	-0.0625	0.3536
		8 to 11	0.02353	0.17042	0.89	-0.3113	0.3584
		Above 11	0.18262	0.17042	0.284	-0.1522	0.5175
	8 to 11	2 to 5	0.122	0.15485	0.431	-0.1823	0.4262
		5 to 8	-0.02353	0.17042	0.89	-0.3584	0.3113
		Above 11	0.15909	0.20447	0.437	-0.2426	0.5608
	Above 11	2 to 5	-0.03709	0.15485	0.811	-0.3413	0.2672
		5 to 8	-0.18262	0.17042	0.284	-0.5175	0.1522
		8 to 11	-0.15909	0.20447	0.437	-0.5608	0.2426
<b>After sales services</b>	2 to 5	5 to 8	-0.061	0.11003	0.58	-0.2772	0.1552
		8 to 11	0.04439	0.16089	0.783	-0.2717	0.3605
		Above 11	0.06712	0.16089	0.677	-0.249	0.3832
	5 to 8	2 to 5	0.061	0.11003	0.58	-0.1552	0.2772
		8 to 11	0.10539	0.17706	0.552	-0.2425	0.4533
		Above 11	0.12812	0.17706	0.47	-0.2198	0.476
	8 to 11	2 to 5	-0.04439	0.16089	0.783	-0.3605	0.2717
		5 to 8	-0.10539	0.17706	0.552	-0.4533	0.2425
		Above 11	0.02273	0.21243	0.915	-0.3947	0.4401
	Above 11	2 to 5	-0.06712	0.16089	0.677	-0.3832	0.249
		5 to 8	-0.12812	0.17706	0.47	-0.476	0.2198
		8 to 11	-0.02273	0.21243	0.915	-0.4401	0.3947

In the LSD Table 4.32, the mean difference which is a significant difference between the means of different annual income groups is indicated by the figures given in bold with an asterisk mark.

**CHAPTER 5**  
**RESULTS AND DISCUSSIONS ABOUT**  
**FINDINGS**

# CHAPTER 5

## Results And Discussions About Findings

Findings are the results revealed from the data analysis performed in chapter 4. The findings presented in the following paragraphs are in relevance with the research objectives and data analysis. The findings are presented as follows:

1. From the responses of a total of 500 online shoppers, 73.80% that is 369 respondents have been found to prefer making payments for online shopping through the mode of cash on delivery. 12% of respondents preferred debit card followed by 10.40% respondents preferring to pay for their online shopping through credit card. 3.6% of respondents preferred to pay by internet banking and 0.20% preferred to pay through other means such as digital apps, for their online shopping. Hence, it was found, online shoppers in Gujarat find the payment mode of cash on delivery most preferable and comfortable.

2. The shoppers' level of agreeing with having perceived or experienced the twenty one factors of online shoppers' perception towards online shopping was measured. The level of agreeing was measured through the means of a Likert scale having range from 1 (strongly disagree) to 5 (strongly agree). It was found that the majority of online shoppers agreed that they perceived and experienced most of the factors while online shopping. It is found that the majority of online shoppers strongly agree with perceiving the factors anytime and place and good discounts and prices while online shopping, with the respective percentage of online shoppers for these factors being 27% and 24%. These factors were followed by 23.4% of online shoppers strongly agreeing with having perceived each of time saving and need for greater ease while online shopping. For the strongly agree option, the lowest percentage of online shoppers was 7.20% who agreed with having the perception of the factor free from fraud, followed by 8.40% of online shoppers agreeing for having the perception of the factor product received as ordered.

3. To know the online shoppers' level of agreeing with having expectations of the twenty one factors of online shopping was measured. The level of agreeing was measured through the means of a Likert scale having range from 1 (strongly disagree) to 5 (strongly agree). It was found that the majority of online shoppers strongly agree with having higher expectation regarding the factors time saving and anytime and place while online shopping, with the respective percentage of online shoppers for these factors being 34.2% and 33.8%.

These factors were followed by 32.4% of online shoppers strongly agreeing with having higher expectation about having variety while online shopping. Relatively lower percentage of online shoppers 12.8%, expect more in terms of convenience from online shopping.

4. In the data analysis, the respondents were categorized based on the level of education. It was found that the maximum percentage of respondents is 67.20%, which is in the category of post graduate (PG) education level, followed by 24.00% of graduates and the minimum percentage being 8.80%, of undergraduates. This shows that the maximum online shoppers were from the group having post graduation and relatively less number of respondents fall in the undergraduate education level category.

5. In the study, the respondents were also divided on the basis of their annual family income. The findings reveal maximum percentage of the respondents, 61.20% that is 306 respondents, are in the category of Rs. 200000 to Rs. 500000, followed by 21.80% that is, 109 respondents in the category of Rs. 500001 to Rs. 800000. Hence, from this, it is found that majority of online shoppers are in the lower middle and the middle income groups. Comparatively, lesser number of respondents fall in the higher middle income group. The percentage of online shoppers from income group of above Rs. 11,00,000 is 8.80% which means 44 respondents and 8.20% of respondents that is 41 respondents were found to be in Rs. 8,00,001 to Rs. 11,00,000 annual income category.

6. The online shoppers were also categorized on the basis of their occupation. From the research it was revealed that majority of the online shoppers are students as 73% which is 369 out of 500 respondents are students. This is followed by 20.40%, that is, 102 respondents from the category of service group. Hence, in the research, online shopping is observed as mainly done by students and members of the service group. Relatively a lower percentage of online shoppers, 4.20% are from professional category followed by 1.60% of online shoppers from the business group. In the study, 0.00% of respondents were found to be homemakers.

7. In the research, with the help of cross tabulation and Chi-square test performed at 5% level of significance, it was found that there is impact of education level of online shoppers, on the time saving and free delivery determinants or factors of perception towards online shopping. Null hypothesis was rejected for these determinants and an association was thus found to exist between education level of online shoppers and time saving and free product delivery, two perception determinants of online shopping. Association between the education of the online shoppers and determinants of perception is also checked by

performing ANOVA test at 5% level of significance. It is found that education level of online shoppers has impact on time saving and free delivery determinants of perception, hence null hypothesis is rejected for these factors.

**8.** In order to study if there is an impact of occupation of online shoppers on the determinants or factors of perception, one way analysis of variance (ANOVA) test was performed. It was found that occupation of the online shoppers have an impact on the following determinants or factors of perception towards online shopping: good discounts and prices, free from fraud, safety of credit card. Null hypothesis is rejected for these factors and hence an association was found between occupation of the online shoppers and the three determinants of perception towards online shopping.

**9.** Gap was identified by finding the difference between the means of expectation and perception, for each of the twenty one factors in the research study. The three highest positive gaps were for the factors product received as ordered, safety of personal details and after sales services. These high gaps show the online shoppers' expectations are high in comparison to the perception or experience they had in terms of these factors or features of online shopping. Negative gap value was found to be present for the convenient factor of online shopping. This negative score shows that for the convenient factor, the perception of the online shoppers is greater than their expectation. This shows that the online shoppers agree that their experience or perception of convenience in online shopping is greater than their expectation about convenience while shopping online. All other twenty factors have positive gap, which means the expectations of the online shoppers in terms of these twenty factors are greater than their perceptions of it.

**10.** Paired t test was performed to know if the online shoppers' perceptions towards online shopping are different from their expectations towards it. It was found that for convenient factor the significance value is 0.925 which is greater than 0.05. Hence for convenient factor, the null hypothesis is not rejected and at 5% level of significance, for convenience of online shopping, the expectations are same as the perceptions towards it. For all other twenty factors, there is statistically significant difference between expectation and perception at 5% level of significance, as the significance value is less than 0.05. Hence for the twenty factors, the null hypothesis is rejected and the online shoppers' perceptions towards online shopping is different from their expectations towards it.

**11.** Factor Analysis was performed to reduce a larger number of variables into a smaller number of factors. Factor analysis was used to reduce the number of variables that are used

to measure the online shoppers' level of agreeability with the perception factors of online shopping. Hence, factor analysis was performed for fifteen factors of perception towards online shopping in the research study. From this factor analysis, five factors were extracted from the fifteen variables. 60.56% of the total variance was explained by the extracted five factors.

The five factors are 'Flexibility', 'Product safety', 'Online security', 'Simplicity', 'Efficiency in services'. The variables time saving, variety, anytime and place, ease of internet use are grouped as flexibility factor. The variables product received as ordered and intact product, constitute the product safety factor. The factor online security is formed from the variables free from fraud, safety of credit card, safety of personal details. The variables need for greater ease and clarity in website are included in simplicity factor. The factor efficiency in services has the variables timely product delivery, free delivery, safe home delivery, prompt customer services.

**12.** In the research study, the factor wise mean agreeability score was found by taking the grand mean of the variables grouped in each factor. Based on the grand mean, the score is highest for flexibility. This indicates online shoppers more agree with having perceived the flexibility factor in online shopping. The least score is for product safety factor. This indicates the online shoppers agree less with having perceived the product safety aspect of online shopping. The factors efficiency in services, simplicity, online security are found to score in the middle.

**13.** In order to study the impact of annual family income of online shoppers on the twenty one determinants of perception towards online shopping, ANOVA test was performed. It was found that annual family income of the online shoppers has impact on the determinants which are time saving, clarity in website, intact product and customer support availability. Null hypothesis is rejected for these determinants and it is concluded that not all of the group means are equal. As only some of the means may be significantly different, differences among specific means are examined through multiple comparison test. Least Significant Difference test, a multiple comparison test was performed to make pair wise comparisons between means of the annual income groups only for the determinants for which the null hypothesis was rejected. It was found that for the online shoppers of income group above 11 lakh rupees per annum, the level of agreeing with having perception of customer support availability in online shopping, is different from the shoppers of other income groups. It was also found that for the online shoppers of income group 5,00,001 to

8,00,000 lakh rupees per annum, the level of agreeing with having perception of clarity in website, in online shopping, is different from the shoppers of other income groups. These are the findings for the present research study of expectation and perception of online shoppers towards online shopping in select cities of Gujarat.

**CHAPTER 6**  
**CONCLUSIONS, IMPLICATIONS AND**  
**FUTURE SCOPE**

# CHAPTER 6

## Conclusions, Implications And Future Scope

### 6.1 Introduction

The chapter consists of the conclusions derived from the present research study. The first part of the chapter comprises of points of conclusion and recommendations to the online marketers and sellers and to the online shoppers. The second part explains the limitations of the study. In the third and the last part of this chapter, it has been attempted to identify and put forth the scope for further research in this field.

### 6.2 Conclusions and Implications

On the basis of the data analysis, certain conclusions and recommendations are presented as follows:

#### **Conclusions and Suggestions for Implications for the online marketers:**

- It can be concluded from the study that majority of the online shoppers agree the most with having expectation of the following features in online shopping: ease of internet use, time saving, anytime and place, free product delivery. The following points of suggestion are offered to the online marketers for meeting the expectations of the existing and prospective online customers, more satisfactorily.

Ease of internet and website usage

- In the study, majority of respondents agree the most with having expectation of greater ease of internet use for online shopping. Further in the study, the annual family income of the online shoppers is found to affect their perception of clarity in website. From the research, a majority of online shoppers in the first income category of two to five lakh rupees are found to agree with having perception of clarity in website in shopping online while the shoppers of all other categories are found to disagree.
- The shoppers having annual family income of two to five lakh rupees are found to shop online for the products available at attractive discounts and prices and due to their familiarity with keeping track of available online price offers for products, they find more clarity in operating the website for browsing, selecting, ordering and purchasing products. As the shoppers of all other income categories disagree with perceiving

clarity in website, the website owners are required to arrange for designing the websites such that the visitors can easily locate the product related information they are searching for, on the website.

- Online marketers and businessmen are suggested to create their websites such that the existing and prospective customers find it easy to navigate through. Website owners are suggested to have their website designed in a way so that it looks attractive for the product shoppers and at the same time has clarity, so that the shoppers feel inclined to explore the given product information or even to make a purchase. Ads, displays and cues on the website are important in attracting shopper's attention and promoting the discounts and new product offerings among the online shoppers.
- Online marketers can present clear and simple steps on website to follow for online shoppers in the form of flow chart or pictures of steps to follow, for safe online shopping. The online marketers are recommended to give detailed photos of products, with availability to zoom and view the photo. Online marketers can also post videos of satisfied customers using the product and their reviews and tips. Doing so can help in increasing the satisfaction and trust in the online customers as they will be able to virtually view the product more clearly and feel more assured about knowing the product.
- Online sellers can give their contact details on all pages of the website so that the person can easily contact the seller regarding product information. Website owners can also include option of webchat such that the visitor on the website can immediately type and ask their product related query and receive an answer in a fixed time limit. This will work for long term for the online business as the customers will feel the product seller pays attention to their issues and this will lead them to trust the website and its seller more, leading to a higher probability of product sales on the website.
- The online marketers are also suggested to adopt Search Engine Optimization (SEO) through which when the internet users type in their search engine a product name or product feature which is also offered by the website, the name of the website will appear among the first few search results. The use of SEO can thus improve the visibility of the website and hence increase the chances of potential customers visiting the website. Also online marketers are suggested to use the product related keywords frequently and suitably while writing about their website.

- The online marketers and business owners are suggested to find what is the opinion of people who visited or actively used the website through asking to rate the website and through tracking tools. This can greatly help the marketers to understand the needs of the customers and improve on their website to attract more customers to the website.

#### Time saving

- From the study it can be concluded that a strong majority of the respondents agree the most with having expectation of the time saving feature in online shopping. Further in the research, it has been found that there is an impact of education and annual family income of online shoppers on their perception towards time saving.
- It is revealed from the study, that while the under graduate, graduate, post graduate online shoppers disagree of having perception of time saving factor in their online shopping experience, a majority of the post graduates agree of having perceived time saving factor while shopping online. Also, from the study, from the four categories of annual family income range, a majority of respondents in the first category of Rs 2,00,000 to Rs 5,00,000 are found to agree with having perception of time saving in online shopping, while respondents of all other categories are found to disagree.
- From this, the online business owners are suggested steps to make the online shopping activity easier and less time consuming for people of all education and income levels.
- Website owners are suggested to arrange for the websites to be available to view and operate in the local language or even only in the national language. This will make it easier and interesting for the people having their education in the local language to access the shopping websites and follow the instructions and shop online. The online business owners can make arrangements for the training and tutorials as how to safely shop online and they can post the tutorial videos on website and circulate the videos through the means of youtube, mobile phones.
- For enhancing the time saving feature, online marketers are suggested to arrange for technical facilities such that when the customers fill their details, the details get auto saved in a secure database of the website. The online marketers are recommended not to time out their customers which means while viewing a website or filling in the details the customers' online session shouldn't be timed out and they shouldn't have to start their recent online activity again from the beginning as this time spent could cause customers to lose their patience and lead to feeling of irritation.

- The product and purchase details which are most likely to be searched should be arranged on the website to enable quick access by the online customers.
- The online marketers can use data and technology in their websites such that it takes less time to load when accessed. In order to enhance the time saving feature of online shopping, the online marketers can include technology such as the use of mobile applications (apps) such as PWA (Progressive Web Apps) which have a faster loading time and are a type of middle apps between websites and native apps.
- The online marketers selling items of regular use and purchase such as pulses, grocery items are suggested that they can make an arrangement such that for the monthly or weekly bought things, the purchases can be booked online and payments can be made in regular intervals such as once a year or once in six months. This arrangement can help in further saving the time of customers whenever they need to buy an item of daily use online as the customers would not have to go upto the physical store as well as would not have to perform the process of online payment every time they buy an item.

#### Anytime and place

- From the study it is found that a good majority of the respondents agree the most with having expectation of shopping at any time and place. Online business owners are suggested to make their website accessible at anytime and at any place through the use of mobile apps for quick and easy access by the online shoppers.
- The online marketers are suggested to make use of Accelerated Mobile Pages (AMP) and PWA (Progressive Web Apps), which exist as middle apps between normal website and native apps. For marketers, it eliminates the costs of time and money which would have been required for app development. PWA also is found to enable faster loading time, better website experience. The customers are not required to download it and can access it through the web browsers, thus saving memory space of devices.

#### Intact product delivery

- From the study, it is found that there is an impact of annual family income on perception of online shoppers of intact delivery of products received online. It is found that the shoppers having annual income category of five lakh and one rupees to eight lakh rupees are found to disagree the most for having the perception of intact product.
- Further in the study, a majority of the number of online shoppers have been found to disagree with having perceived the following features of online shopping: product received as ordered and intact product. These two features also form the product safety

factor, derived from performing factor analysis in the study. Factor analysis was used to reduce the fifteen variables that are used to measure the online shoppers' level of agreeing with having the perception features of online shopping.

- From the factor analysis performed in the study, the online shoppers were found to least agree with having perception or experience of product safety factor. Hence the online marketers are suggested the following points for safe product delivery:
- Online marketers are suggested to make arrangements for creating and maintaining a suitable database having the name and contact details of online shoppers, their product orders, payments, product deliveries, stock of products, regular updating of these details.
- Online sellers can offer facility to customers to be able to choose from an option of three given days and different timings to receive the purchased product delivery at their given address.
- Online marketers are recommended to use electronic devices wherever possible as the product order, payment and delivery details will be stored with more accuracy and can be easily reviewed.
- Online organizations can make tie-ups with manufacturers and suppliers in several areas to facilitate faster and safer delivery of product. On the basis of market demand, the online marketers can tie-up with local suppliers and offer product varieties.
- The interests of local grocery and kirana store owners can be protected by online marketers collaborating with the local shopkeepers. The online marketers can simplify and spread the shopping process through which the online customers are delivered products from the shops nearest to their location, and the online marketers can share the income and profit in appropriate percentage with the local shopkeepers with whom they have tied-up.
- For foolproof safe system, all online companies can be registered under one system or department of government. In case of product not supplied after order, or faulty product received, online customers can register their enquiry or complain in that office for quick product recovery. So customers can buy from such registered online companies. Also, if there occurs payment issue, then the online company can ask the office department to check with the particular customer.
- The online marketers are suggested to collaborate with reliable and experienced logistics groups for transport and product dispatch and delivery as these established

groups have centers in several areas and would provide quality services of transporting the product safely as they will have sincere interest in protecting their own name and brand value.

- Online marketers are strongly recommended to verify the quality and genuineness of the products which they intend to sell as their name and brand value are based on it.
- Online business owners are suggested to make arrangements such that that if customers receive a damaged or different product and then contact the company, the staff at the company should not keep the customer waiting for long time period on phone line but promptly respond to the customers. Based on the customer complaint, online company can make arrangement for collecting back the product and arrange for money refund or replacement of the product. This will also be a step for the online company in building long term relation with its customer.

Free delivery

- From the study it can be concluded that a majority of the respondents agree the most with having expectation of the free delivery in shopping online. Further in the research, it is also found that education level of the online shoppers has impact on their perception of free delivery factor of online shopping. It has been found in the study that more of post graduate shoppers agree with perceiving free delivery in online shopping.
- One of the features of online shopping which makes it different from conventional shopping is the online shoppers can receive their product at their doorstep. The online marketers can make this feature more appealing to the customers if they can minimize their transport and logistics expenses and provide free delivery of the product purchased online by their customers.
- The online marketers can offer schemes to the customers for providing free delivery of products to them, the schemes can be such as:
  - Online marketers can provide free delivery of the purchased products if the customer has signed up an year long membership with the website or the online organization of the marketer selling the product to the customer.
  - Online marketer can provide a free delivery of the product within a defined limit of distance in kilometers from the location of the logistics courier center or the store where the product arrives from the online organization.
  - Online marketers can provide a free delivery for purchase of products exceeding a defined price limit or for purchase of a certain minimum or more number of products.

### Good discounts and prices

- In the study, it is found that occupation of shoppers has impact on the good discounts and prices, while online shoppers of all categories are found to disagree with having the perception of good discounts and prices, a majority of the respondents in student category agree of having the perception of good discounts and prices in online shopping. This shows the students shop online with awareness of discounts and low price schemes as many of them have a low to medium starting income, so they can easily buy products within affordable personal budget. Through market research findings and surveys, the online business owners can understand the market demand and know the occupation category of their target market. The online business owners can then offer their products to the target market with the desired product features, variety, quality at suitable prices to meet the market demand. The online sellers can ask the customers to fill in their occupation along with giving their name and contact details, to know the customer categories of occupation as well as can estimate the income groups from this and can target discounts and product offers accordingly. For instance, for academic professionals purchasing products online, the online seller can offer a discount on purchase of three or more books, or offer book covers, stickers and book marks, geometry sets for students or offer attractive free cloth carry bags with household items for homemakers.
- Most from the student and service groups of online buyers may purchase generic consumer goods of low to moderate prices and reasonable quality while the higher class of businessmen and professionals may prefer branded products to uphold their social status in society.
- Hence, the online marketers are required to promote their discounts and price schemes and gift offers in ways such that maximum people become aware of it. Based on the product type, the online business owners can promote their luxury product offerings through sponsorships and organizing events, competitions in schools, colleges, award functions, cultural events, local or national TV shows, youtube, net series and celebrity endorsements. These promotions may be done only if it can be accommodated within the budget of the online business along with maintaining the quality of the product.
- For products of regular use, the online marketers and sellers can promote their price discounts among people through catalogs, local papers, discount codes, pamphlets. Discount coupons, codes can be offered to online customers on the internet.

- Further, in order to maintain the interest of the customers and attract new customers, the online marketers are suggested the following points:
- Online marketers can offer a good discount to their customers who introduce their friend to the website or online organization and the friend purchases two or more products from the marketer's website or online organization.
- Online sellers are suggested that when customers buy products from them, depending on the type of products, the sellers can offer the customers something for free – such as free samples, free trial, two-for-one offer, free membership for some days or one or more months.
- Through emails or chats on social media, the online marketers can convey appreciation or thanks to the customers or offer availability of help to the customers for the product usage.
- Online marketers are suggested to offer cash-backs to the customers and have return policies that are easy and accessible by the customers.

#### Payment mode

- Majority of the online shoppers are found to prefer to pay for their online shopping through the means of cash on delivery, hence it is suggested to the online business owners that in order to encourage and promote the use of cashless means of payments like credit cards, debit cards, internet banking, the online marketers can collaborate with the respective banks of the cashless cards and offer discounts and rebates to the online shoppers for their use of credit cards or debit cards to pay for their online shopping.
- When online customers in India order and receive the delivered product and then pay in cash, it gives them the feeling of surety and confidence with regards to the product and the money they pay for it. The online marketers are suggested that they can offer the online customers in Gujarat and in India, a guarantee of return of money paid by the customer for product price and its delivery, if the product delivered is defective or damaged or different. This will give assurance to the customers that they will not incur a loss if they purchased online.
- In the study, it is found that occupation of shoppers has impact on the free from fraud and safety of credit card factors of perception. It was revealed that a majority of the service categories among online shoppers disagreed of having perception of free from fraud in online shopping. This indicates the online shoppers, especially the service

group are cautious of what they spend their income on and are wary of the presence of fraudulent and insecure websites and therefore disagree with the perception of online shopping being free from fraud. This shows the online marketers and business owners need to communicate the genuineness of their online business to the customers to increase the trust in their websites and online product offerings.

- It is suggested to the website owners to include the brand name in the name of the website in order to let the customers know that it is a genuine website.
- The online marketers are suggested to purchase SSL (Secure Socket Layer) certificate from VeriSign, the most trusted name on internet. This will enable the website name to start with https:// along with a green bar and a padlock sign. This serves as an indication for the users and online customers of the website that it is a secure website. Also, obtaining a certificate from eTrust and displaying it, shows that the website can be trusted by the users and online customers. Recognized trust badges from McAfee or GeoTrust serve as reliable trust logos which can be obtained by online marketers to increase feeling of security and trust in online customers.
- Hence, online marketers are suggested to obtain certificates from established organizations on the internet, in order to convey assurance to the prospective customers that theirs is a secure and trustworthy website on which one can safely purchase and make payment or create an account and log in.
- In the research, occupation of the online shoppers is found to impact the perception of safety of credit card. It is found that while respondents of all the categories of occupation are found to disagree having perceived safety of credit card, in the student category, a majority of the respondents are found to agree of having perception of safety of credit card. This shows that in the recent times, the students are more aware about the precautions and indications to observe for a safe online credit card transaction and product purchase and are therefore most of the student group agrees with having perception of safety of credit card while shopping online. At the same time, the shopping website owners need to ensure and communicate to all the categories of customers, the safety and security of credit card and all available modes of online payment. Some suggestions are offered to the website owners in order to increase the trust and confidence of customers in paying money online for the purchased products.
- Online marketers are strongly recommended to protect their websites from hackers and ads. The websites need to be protected for secure communication between the online

shopper and marketer through website. This can be achieved through the use of firewall, Virtual Private Network (VPN), proxy server as well as proper identification, encryption, authentication techniques on the marketer side as well as the customers can be advised in brief to keep the firewall settings on in their devices, for security against fraudulent websites.

#### Customer Support Availability

- From the results of the study, it is found that for the online shoppers of income group above 11 lakh rupees per annum, the level of agreeing with having perception of customer support availability in online shopping, is different from the shoppers of other income groups. This can be attributed to the possibility of online shoppers of the highest income group being used to taking more of personalized and premium customer support and services than the other income groups. Also, a majority of online shoppers in the first income category of two to five lakh rupees agree with having perception of customer support availability in shopping online while the shoppers of all other categories disagree. The online shoppers of the first category prefer to buy general products of daily use and are found to be more used to online shopping for the good price offers available to them. Hence they feel acquainted with shopping online and require relatively lesser amount of assistance or help from the website members to shop online. While the respondents of higher income categories shop online relatively less as compared to the first income group. Hence, the shoppers of higher income categories require customer support availability in the steps for selecting, ordering, payment and purchase of products through the website.
- The customer support member can offer some free tips or advices to help the customer in purchasing or usage of a product online and meet the information needs of the customers to remove any apprehensions about the product or website.
- The online business owners can arrange for availability of prompt and responsive communication between customers and support staff of the business through webchat, chat over social media, forums, online communities. This will enable the customers to feel that the seller is paying attention to their concerns and problems and is providing services after the sales too. This can lead to an increase in the trust for the seller company in the minds of the online shoppers who may continue buying products from the seller and recommend to others and spread positive word of mouth for the online seller.

- For interested customers not very confident in shopping online, the online sellers can make arrangement such that when the interested customer calls on the online company's phone number, the company staff will arrive and bring along an album containing product details and explain to the customer. If the customer is satisfied and desires to purchase the product, the staff will book the products online before the customer.
- Hence providing prompt customer support and after sales services can enable the online business owners in building long term relation with customers and securing trust and loyalty of the customers which can lead to greater growth and profit of the online organization as well as online market.
- Thus, the online marketers can include the occupation and educational qualification details along with the name and contact details of the online shoppers as this can also help the marketers to know the estimated income range of the shopper. Through knowing these details of the customer, the online marketer can formulate marketing and selling strategies and offer products and services to effectively meet the requirements of the target market.
- Hence, it is concluded that on the basis of the above suggestions for the online marketers, the online marketers can enhance their product offerings and services so that the shoppers' perceptions towards online shopping meet or exceed their expectations towards it, leading to satisfaction in the online shoppers and an increase in the shoppers' inclination for online shopping, which can lead to greater growth and profit of the online market and industry.

**Suggestions and conclusions for the online shoppers:**

- On the basis of the research, the suggestions offered to the online shoppers are as given below:
- The online shoppers are suggested to clear the browser history prior to and post their online transaction so that no fraudsters can access their financial or personal information.
- The online shoppers are suggested to try and buy new products instead of the "seller refurbished" products as such products do not carry warranty and can be having issues which would not get solved easily.
- The online shoppers are suggested to be careful and not share the one time password and card pin number with anybody.

Thus, given above are suggestions for the online shoppers, so that they have a safe online shopping experience.

### **1.3 Contribution to the new body of knowledge**

The contribution of the present research study to the body of knowledge is presented as follows:

In the research study, it is found that the expectations of online shoppers towards online shopping are greater than their perceptions of the same, for all twenty one factors except convenience. Hence online shoppers are satisfied with the convenience experienced in online shopping.

It can be concluded from the study that majority of the online shoppers agree the most with having expectation of the following features in online shopping: ease of internet use, time saving, anytime and place. Demographic factors of online shoppers such as education, occupation and annual family income are found to have impact on their perceptions of the twenty one online factors. Suggestions have been offered to the online marketers for better product offering, identifying and understanding the gaps between expectations and perceptions of online shoppers, to meet the expectations of the existing and prospective online customers, more satisfactorily. This could lead to greater trust and satisfaction in online shoppers and growth and development of online market and industry.

### **6.4 Limitations of the study**

- The limitations of the research study are stated below.
- Primary and secondary sources of information have been used in the study and efforts have been made to come to realistic conclusions but the same cannot be claimed to be ideal or perfect.
- There might be possibility of presence of respondent bias in the responses.
- Efforts were made to explain the questionnaire but there is a possibility that the respondents may not have interpreted the same correctly.
- In the research five main cities of Gujarat were considered for data collection. The sample is from urban population. Rural respondents could have given different views. Hence the generalization of the study gets restricted.

- The respondents were less enthusiastic in sharing their contact details and annual income of family and some inaccuracies may have crept in due to the same.

### **6.5 Scope for Future Research**

- In the present research study the expectations and perceptions of the online shoppers towards online shopping in Gujarat have been studied. The scope for future research in the related field is as follows.
- The present study is based on response collected from urban areas and the scope can be enlarged by including respondents from rural areas.
- Research can also be performed on studying the expectations and perceptions towards online shopping of product categories such as FMCG (Fast Moving Consumer Goods) or consumer durables.
- Research study can be performed to study the satisfaction level of online shoppers shopping from different web sites. A comparative study of different web sites can be done based on satisfaction ratings of online shoppers on different factors .
- There is scope for performing further research taking into account the effect of different demography variables.
- The views of the online shopper is the basis of the present study. The scope can be expanded by including opinions of online business owners, marketers, and logistic personnel.
- The present research study has been carried out in the state of Gujarat. Similar study can be performed in other states of India. Entities keen on exports may also conduct similar studies in foreign countries.

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# **LIST OF PUBLICATIONS**

## **List of Publications**

1. “Sentiment Analysis on E – Reviews for Gujarati Products” (April 2018), Surya Baser, Dr. Kerav Pandya, Dr. Zdzislaw Polkowski, *International Journal of Electrical Electronics & Computer Science Engineering*, Volume 5, Issue 2.
2. “Clustering Based Opinion Mining for Online Shopping – COMOS” (February 2019), Surya Baser, Dr. Kerav Pandya, Dr. Zdzislaw Polkowski, *International Journal of New Innovations and Technology*, Volume 10, Issue 1.

# **APPENDIX**

# Appendix

Appendix : Questionnaire

## QUESTIONNAIRE

1. Name

Mobile Number:

2. Do you purchase online?

Yes

No

3. What is your preferred mode of payment for items purchased online?

**(SELECT ANY 2 OPTIONS)**

- Cash on Delivery of item
- Credit card
- Debit card
- Internet Banking
- Others, please specify

	<b>4. YOUR FUTURE EXPECTATIONS FROM ONLINE SHOPPING</b>						<b>5. YOUR PAST EXPERIENCE OF ONLINE SHOPPING (PERCEPTIONS)</b>				
<b>FACTOR</b>	<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neutral 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>		<b>Strongly Disagree 1</b>	<b>Disagree 2</b>	<b>Neutral 3</b>	<b>Agree 4</b>	<b>Strongly Agree 5</b>
1. Online shopping is time-saving as it saves my time of travelling in traffic, waiting in queues.											
2. Online shopping helps me to choose from wide variety of products.											
3. Online shopping enables me to purchase any time, any place.											
4. Online shopping is more convenient than traditional shopping.											
5. It is easy to use internet, to view, select and order products online.											
6. Online shopping gives easy access to product information, its availability.											
7. Through online shopping, I get products at comparable prices, good discounts and offers											
8. During online shopping, it is easy to find the product I am searching for.											
9. The online shopping websites show the product information in a clear and attractive manner.											
	<b>YOUR FUTURE EXPECTATIONS FROM ONLINE SHOPPING</b>						<b>YOUR PAST EXPERIENCE OF ONLINE SHOPPING (PERCEPTIONS)</b>				

FACTOR	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
10. The website is never fraud and there are no chances of being cheated.											
11. My credit card details are safe when shopping online											
12. The product I receive is same as the product I order.											
13. I never receive a damaged or a poor functioning product from online shopping											
14. I never receive the product late											
15. Free delivery of products is available											
16. Home delivery of product by a stranger is safe											
17. It is allowed to return the product and the process to return is convenient											
18. It is safe to share my name, personal details in online shopping and my personal details are never misused.											
19. The customer support is always available online for the product purchase or information.											
20. Online customer service is fast and answers me in a short time											
21. There is satisfactory after-sales services for products bought online											

**Please select your option:**

6. Education:

Under graduate

Graduate

Post graduate

**7. Occupation**

Business / Service / Student / House wife/ Professional

**8. Annual Family Income (In Rupees)**

2,00,000 - 5,00,000

5,00,000 - 8,00,000

8,00,000 - 11,00,000

Above >11,00,00